

Adams, C. A.

1931

STORED

Present status of industrial democracy.

School of Education

Aug. 10, 1931

8433

Ed.
Thesis
1931
Adams, C. A.
stored

BOSTON UNIVERSITY
SCHOOL OF EDUCATION

Thesis

THE PRESENT STATUS OF INDUSTRIAL DEMOCRACY.

Submitted by

Conrad Arnold Adams

(B.S. University of Vermont, 1909)

In partial fulfillment of the requirements for the
degree of Master of Education.

1931.

Boston University
School of Education
Library
✓

- Foreword.-

This thesis intends to develop the various influences that have functioned to bring about the present status of industrial democracy. This will be traced from its early beginnings, and touch upon the various factors that have contributed to the evolution of our industrial life up to the present time.

Part one. Deals with the background of early conditions, the autocracy of employers and the apprentice systems.

Part two. Deals with the working conditions, the beginnings and troubles of organized labor, the industrial revolution and the beginnings of scientific management.

Part three. Deals with the present conditions and problems, the changing attitude of labor and employers, labor education and legislation, and a hope for what the future holds for us.

Table of Contents.

I. - Early Beginnings.	1.
A. Beginnings of Craft Gilds	4.
B. The Domestic System	5.
C. The Beginnings of the Factory System.	5.
D. Autocracy of Employers.	6.
E. Factory Oppression	8.
F. Early American Conditions	9.
II.- Working Conditions	11.
The Origins of Unrest	12.
I. The Work Period	13.
II. Inadequacy and Uncertainty of Income	16.
III. Industrial Hazards	27.
IV. Struggles and Repressions	33.
V. Attitude of the Government	36.
III.- The Beginnings of Organized Labor	37.
A. The American Federation of Labor	42.
B. Labor Troubles	43.
C. Scientific Management	44.
D. Taylor Society Aims	50.
E. Problems of Reemployment	54.
IV. - Steps Toward Industrial Democracy	69.
A. Attacks on Laissez-Faire in Industry	70.
B. Various Concepts of Industrial Democracy	71.

Table of Contents.

I. - Early Beginnings.	1.
A. Beginnings of Craft Gilds	4.
B. The Domestic System	5.
C. The Beginnings of the Factory System.	5.
D. Autocracy of Employers.	6.
E. Factory Oppression	8.
F. Early American Conditions	9.
II.- Working Conditions	11.
The Origins of Unrest	12.
1. The Work Period	13.
II. Inadequacy and Uncertainty of Income	16.
III. Industrial Hazards	27.
IV. Struggles and Repressions	33.
V. Attitude of the Government	36.
III.- The Beginnings of Organized Labor	37.
A. The American Federation of Labor	42.
B. Labor Troubles	43.
C. Scientific Management	44.
D. Taylor Society Aims	50.
E. Problems of Reemployment	54.
IV. - Steps Toward Industrial Democracy	69.
A. Attacks on Laissez-Faire in Industry	70.
B. Various Concepts of Industrial Democracy	71.



Digitized by the Internet Archive
in 2016

<https://archive.org/details/presentstatusofi00adam>

C. Trade Union Ideas of Democracy in Industry	73.
D. Element of Democracy in Collective Bargaining	75.
E. Requirements of Industrial Democracy	78.
F. Evidences of Democracy in Industry	81.
A Platform for American Business	83.
1. Maintenance of Standards of Living	85.
2. Stabilization of Future Business Growth	85.
3. Promotion of International Business	
Cooperation	86.
4. Encouragement of Private Initiative and	
Responsibility vs. Extension of Govern-	
mental Activity.	87.
G. Problems and Objectives of Each Group	88.
1. Industrial and Business Management	88.
2. Industrial, Trade and Commercial	
Organizations	89.
3. Banking and Financial Institutions	89.
4. Labor	90.
5. Government	90.

List of References Consulted.

1. Beard. American Government. New York: The Macmillan Company. 1927.
2. Bogardus. Fundamentals of Social Psychology. New York: The Century Company. 1924.
3. Cabot, Dr. R.C. What Men Live By. Boston: Houghton Mifflin Company. 1914.
4. Carver, T.N. Essays in Social Justice. Cambridge: Harvard University Press. 1925.
5. Carver, T.N. Present Economic Revolution in United States. Cambridge: Harvard University Press. 1928.
6. Chase, Stuart. Men and Machines. New York: Harper, 1930.
7. Cheyney, E.P. Industrial and Social History of England. Boston: Macmillan Company. 1929.
8. Clarke. History of Manufactures in United States. 3 volumes. New York: McGraw-Hill Book Company. 1930.
9. Cushman, Frank. Foremanship and Supervision. New York: John Wiley and Sons. 1930.
10. Davis, James J. and Wright, Frank. You and Your Job. New York: 1930.
11. Diebler, Principles of Economics. New York: McGraw-Hill Book Company. 1927.
12. DuBreuil. Robots or Men. New York: Harper & Brothers. 1930.
13. Fairchild, Furniss, Buck. Elements of Economics. 2 volumes. New York: Macmillan Company. 1929.
14. Fitch. Causes of Industrial Unrest. New York: Harper and Brothers. 1924.
15. Gemmill. Present Day Labor Problems. New York: Macmillan Company. 1928.
16. Groat. Organized Labor in America. New York: Macmillan Company. 1924.
17. Hoxie, Robert F. Trade Unions. New York: D.Appleton Company. 1920.

12. Hoxie, Robert F. Scientific Management and Labor. New York: D. Appleton Company. 1915.
19. Houser, J. David. What the Employer Thinks. Cambridge: Harvard University Press. 1927.
20. Kimball, Dexter S. Principles of Industrial Organization. New York: McGraw-Hill Book Company. 1925.
21. Lauck, W. Jett. Industrial Revolution and Wages. New York: Funk and Wagnalls Company.
22. Lauck, W. Jett. Political and Industrial Democracy. New York: Funk and Wagnalls Company. 1926.
23. Lewisholm, Samuel A. The New Leadership in Industry. New York: E.P. Dutton Company. 1926.
24. Link. Employment Psychology. New York: Macmillan Company. 1921.
25. Lumley. Principles of Sociology. New York: McGraw-Hill Book Company. 1928.
26. Loomis, Havemeyer. Conservation of Our National Resources. New York: Macmillan Company. 1929.
27. Myers. Representative Government in Industry. New York: D. Appleton Company. 1920.
28. President's Conference on Unemployment, Recent Economic Changes in the United States. New York: McGraw-Hill Book Company. 1930.
29. Pollock, James K. Readings in American Government. New York: Henry Holt Company. 1929.
30. Proceedings, American Society of Mechanical Engineers. New York. 1906.
31. Smith, Walter R. Educational Sociology. Boston: Houghton Mifflin Company. 1923.
32. Tead, Ordway. Instincts in Industry. Boston: Houghton Mifflin Company. 1923.
33. Tead, Ordway. Human Nature and Management. New York: McGraw-Hill Book Company. 1930.
34. Tugwell. Leadership's Coming of Age. New York: Harcourt Brace. 1927.

35. Williams, Whiting. Main Springs of Men. New York: Scribner Company. 1925.

Magazines and Periodicals.

Bassett, W.R. and Crowther, Samuel. What's Wrong With Textiles. World's Work. February, 1930.

Bent, Silas. Story of the Machine. World's Work. June, 1929.

Boston Herald. Editorial Comment on Boston Elevated Report. February 10, 1931.

Boston Herald. Editorial Comment on President Hoover's veto of the Muscle Shoals Bill. March 4, 1931.

Crowther, Samuel. Steel's First Birthday. World's Work. September, 1930.

Corey, Herbert. Men That Make the Machines. Nation's Business. June, 1930.

Editorial. New Machines - More Employment. American Machinist. April 12, 1931.

Gammick, Thomas H. Miracles of Reemployment. World's Work. February, 1929.

Grant, W.T. We Prosper in Spite of Ourselves. Nation's Business. April, 1930.

Hobbs, Franklyn. The Machine Age and its Consequences. American Machinist. January 20, 1931.

Jones, Inis Weed. Safety for Workers and Employers. World's Work. June, 1930.

Klein, Dr. Julius. The Challenge of the Machine. American Machinist. February 5, 1931.

Marcosson, Isaac F. The Problem of Unemployment. Saturday Evening Post. February 29, 1931.

Mitten, Thomas E. and Green, William. Two Important Views of Worker Ownership. World's Work. March, 1929.

McGraw-Hill Publishing Company. A Platform for American Business, Supplement to American Machinist. February 23, 1931.

Parkman, Francis, Industrial Crusader. World's Work.
April, 1930.

Stark, Louis. Labor and Industry now Offer Various Un-
employment Cures. New York Times. October 19, 1930.

Steel. Editorial, Wages, Prices Farthest Apart in Busy
Mechanized Era. May 7, 1931.

Taylor Society Bulletin, Statement of Aims of the Society.
June, 1930.

Van De Water, Frederick F. Eliminating Mine Slaughter.
World's Work. May, 1929.

The Present Status of Industrial Democracy.

Part I.

A discourse on the subject of the Present Day Status of Industrial Democracy, would be incomplete without an examination of the early conditions and relations between men. Early Beginnings.

If we go back in English History to the century from 1250-1350, we find the greater part of the English country life was village life. The farm houses were not isolated or separated from one another by surrounding fields as they are in modern times, but were gathered into villages. Each village was surrounded by arable lands and woods reaching to similar fields belonging to the next village. Such an agricultural village with its population and surrounding lands was usually spoken of as a "Vil" or sometimes "Manor".

The village consisted of a group of houses ranging in number from ten or twelve to as many as fifty, grouped around what in later times would be called a village green.

The houses were small one room affairs with a thatch roof, and doubtless very miserable. There was usually a manor house, which varied in size from an actual castle down to a building scarcely distinguishable from the other primitive houses of the village.

Agriculture was extremely crude. The breed of animals was small. Variety of food-stuffs was limited as potatoes were unknown, and other root crops apparently little culti-

vated. Wheat and rye for bread stuffs and barley for brewing seems to have been their principal crops. The struggle for food for man and beast was their chief aim in life. Owing to this difficulty, animals that were to be used for food purposes were regularly killed in the fall and salted down. Much of the unhealthiness of mediaeval life is no doubt attributable to the use of salt meat as so large a part of what was at best a monotonous diet.

Every manor was in the hands of a lord. He might be a knight, esquire or a mere freeman, but in the majority of cases the lord of the manor was a nobleman. In any event, the tenants of the manor, ranging from holders of considerable amounts of land through the various graduations down to villains and mere cotters - with a garden, or no land at all - were living always at the mercy of the lord of the manor

All these tenants made some kind of payment regularly as rents. In the case of some, money payments were given. Those of the villains were largely corporal service and extremely heavy, while with the cotters not so heavy as they of necessity had to have time to make their living by earning wages.

Their economic position was so similar that the classes shaded into one another, but the villain was burdened with heavy services. He was subject to special payments, such as when a woman of villain rank was married.

He could be taxed to any extent the lord saw fit. He

was bound to the soil. He could not leave the manor to seek for better conditions of life elsewhere. If he ran away, his lord could obtain an order from a court and have him brought back. He could not remain away from the manor except by permission and then only on regular payment of "Chevage" or head money.

He had no standing in the courts. In any suit against his lord, the proof of his condition of villainage was sufficient to put him out of court and his only recourse was the local court of the manor where the lord himself or his representative presided.

During 1348-1350 a great pestilence known afterwards as the "black death", removed nearly half of the population of England with a consequent creation of a new situation, that of a shortage of labor, and owing to the less favorable positions of the lords of the manors, many villains demanded and obtained increased wages and grants of lands.

In 1349 the King, by advice of council, issued a proclamation prohibiting laborers from asking for more wages. That this was not obeyed in many places is attested to by the Parliament of 1351 enacting what is known as the "First Statue of Laborers," in substance repeating its prohibition of wage increases, and threatening drastic penalties for not obeying.

During the interval to 1381 we obtain a glimpse of restlessness amongst the masses. This was fomented by

(1) repeated enactments of the statutes of laborers, (2) the probable improvement of the economic position of the lower classes made them impatient of the many burdens which still pressed upon them, (3) many wandering priests preached communism and (4) the failure of the war with France, were all reasons for popular anger.

The most definite and widespread cause of discontent was probably the introduction of a new form of taxation - the general poll tax, a device inaugurated to pay the expenses of the war. This eventually led to an uprising of the peasants, when many records were burned and much damage done. The result was eventually a commutation of services, and the lords of the manor became landlords of the modern type: the word yeomen being generally adopted as the new name of the former villains and cotters.

Beginning of Craft Gilds.

In the meantime the various industries had established craft gilds, consisting successively of apprentice, journeyman and full Master craftsman. In many cases we have evidence of the apprentices being treated inhumanly.*

In time the various divisions of the gilds set up an organization of their own to promote their welfare, and advance their position. This led in time to a spreading out of industries, and the introduction of cotton working made

*Cheyney - Industrial and Social History of England.
Chapter I to VIII.

supervision of these workers impossible.

The Domestic System.

As has been mentioned before, the introduction of cotton manufacture¹⁷⁶⁰ had many far reaching influences on industry. Among them was the setting up in a larger way the Domestic System since cotton could be spun at home and the yarn returned to the mill. This in turn caused a loss of unity of membership in the guilds because of the growth of industry outside of their sphere of control, lack of communication being the handicap. Gradually the government assumed many of their economic functions, so being deprived in many instances of their justification for existence they gradually ceased to exist.

We have a few survivals of the old craft guilds even to the present time but they are purely social at present.

The Beginnings of the Factory System.

The period between 1760 and 1800 marked the decay of the domestic system and the rise of the factory system. Following the invention of the cotton gin, Hargreaves spinning jenny, Cromptons spinning mule and Arkwrights loom, the needs for artificial power forced a change to locations where water power was available and later Watts steam engine enters the picture, and the old domestic system becomes a thing of the past.

This caused the desertion of many villages and the

drawing of the scattered population of other parts of the country to narrow streets, causing a general breakdown of the old arrangements for providing water, drainage and fresh air. High rents meant crowded rooms. Factory towns were filthy, crowded and demoralizing with its attendant misery.

Autocracy of Employers.

By 1848 the railroads and steamships had created many new classes of workingmen, such as railroad laborers, engaged in construction; better paid than farm laborers but subjected to the evils of constant change of location, employment under ruthless contractors, separation from families, the poorest of shelter or none at all and the roughest of food.

These men were subjected to the "Company Store" system by which they were given credit at a store kept by the employing company or contractors; their debts being paid by keeping its amount from their wages on pay day. Many evils were present under this regime that had its demoralizing effects.

In spite of improvements in machinery, mining and the gradual removal of some of the abuses, the condition of the lower classes was deplorable. In fact it has come to be known as the "Hungry Forties."

All records testify to low wages, high prices, irregular employment, crowded working and living conditions,

dirt, disease, suffering and social injustices. Wages for women in field work were fifteen to twenty cents a day; in the mills about two dollars a week, with food costs comparing with the present time. The common people seldom had meat, and even their bread, potatoes and turnips were of the poorest quality and insufficient in amount. Work was very irregular, and at times only extensive charity prevented actual starvation. Life among the working classes had to be spent without education, share in government, or opportunity for enjoyment, except of the lowest character. Thousands of families in the manufacturing districts of Manchester, Birmingham and Liverpool lived in undrained and unventilated cellars.

Among the political and industrial governing class there was, at the worst, much injustice and hardness, at the best, mismanagement, neglect, lack of sympathy or a sense of helplessness in the presence of intolerably bad conditions. Their world was ruled by "laissez-Faire" and crime. Brutality and discontent flourished among the masses.

Pauperism had been a serious matter for many years and was enhanced by many acts establishing living wages and by granting public charity when needed. This was quickly capitalized by cutting wages, and shifting the burden of living to the authorities. This was demoralizing in that it deprived the workmen of the incentive of thrift and fostered indolence because of his knowledge of a paternal government

that would care for him anyway.

Factory Oppression.

The early mill owners had their difficulties in recruiting an ample supply of labor for their mills, situated of necessity at first in remote parts where there was available water power. These mill owners conceived the idea of taking large numbers of poorhouse children under the guise of apprentices, and setting them to work in their factories.

These children ranged from seven years up and were subjected to harsh conditions, twelve hours of work either day or night, and longer day work if there was no night work. Any time needed for rest was taken for cleaning machinery.

The rise of the steam power caused a similar set of deplorable conditions in the coal mines where girls six to eight years of age were making ten or twelve trips a day carrying fifty pounds of coal up steep ladders. Men and women worked side by side nearly naked, and women were forced to crawl in low tunnels two feet high pulling heavily loaded cars of coal. These conditions brought about laws in 1842 limiting underground work to boys over ten years and none to females. The acts also set up regulations attempting to inaugurate mine safety, ventilation and licencing engineers.

Among the first attempts at our modern interest in the

workers was Robert Owen, who declared his greater interest in "living" machinery of the business, the men, women and children working in the mills, than in the "dead" machinery. In the main his ideas were too advanced for general acceptance and gradually died out owing to powerful self interests of mill owners, ignorance and aristocratic conceptions of economic life.

Early American Conditions.

In the beginnings of the factory system in America 1720-1730, we find * that many cities like New York, Boston and Philadelphia had installed textile working devices such as looms and spinning wheels in the work houses, to take advantage of the free labor of the child inmates. Fifteen hours is mentioned as a day's work.

However, the factory system did not upset the village system in America as it did in England since so many villages were already located near a stream where corn and wheat could be ground. The main labor demand for the factories was near at home on the farms and in the villages nearby.

The first nine operatives of the Slater mills were seven boys and two girls age seven to eleven years.

Previous to 1886 factory laws were to be found on the statute books of many states and had in some cases been in force for several decades. The employment of young workers and indeed of all workers for excessive hours was prevalent

* Clarke - History of Manufactures in United States. Vol.I.

at that time. In 1836 it was asserted that children only six years old were working in the cotton mills of Augusta, Georgia. The New Jersey inspector of factories and workshops found 15,000 young, employed in 5000 factories of that state. The average age at which they went to work was nine years, and they were employed from eleven to fourteen hours a day. Their weekly wages did not exceed as a rule, two dollars. At Cohoes, New York, children sometimes not yet in their teens were kept at work in the cotton mills under harsh overseers for eleven hours a day. Corporal punishment was used to discipline these child workers, whose wages often went to support idle fathers who could find no employment in competition with the cheaper labor of their own children.

Part II.

Working Conditions.

The term "Industrial Unrest",* is used in most places in the sense in which it is generally understood, referring to the dissatisfactions and manifestations of dissatisfactions on the part of the workers, rather than on the part of the employer. This is because the struggle between the two parties that grows out of the feeling of unrest is generally although not always, precipitated by the workers. Strikes are overwhelmingly more frequent than lockouts.

Labor seems to be the aggressor in the struggle. It is a battery at the defense, seeking a change in the status quo. The employer is generally on the defense, since he desires no change in the conditions if he is making money, and if he is not prospering he naturally desires a downward revision of wages as his first reaction to the demands of economy from the board of directors.

When the employer reduces wages or increases hours, he is really the aggressor, but he does not appear to be, because he does not attract attention unless the workers protest. If the protest takes the form of a strike, the laborers appear to be the aggressors almost as much as if they were striking for an improvement in their working conditions, instead of a reduction.

However, the majority of strikes are for an improvement

* Fitch - The Causes of Industrial Unrest. Page I.

in working conditions. Generally the workers are the aggressors in fact as well as in appearance. It is not inappropriate, therefore to use the term industrial unrest to describe the state of mind of the workers, rather than that of the employers.

It needs no argument or anything but a casual glance at any daily newspaper to show there is unrest in industry. The number of strikes, the shifting from job to job that has come to be one of the chief characteristics of modern industry.

It is intended during the course of this thesis to include what is called "A Platform for American Business," that seems to suggest a remedy for this and other phases of the shortcomings of American business that are occupying many columns of the daily papers and the time and money of persons in all walks of life.

Labor turnover is the term used to describe this movement. It is measured approximately by the ratio existing between men hired in a year and jobs available. If as many men are hired each year as there are jobs, the labor turnover is one hundred percent. In many manufacturing enterprises this is not considered as an abnormally large figure.

The Origins of unrest are many and varied, some perhaps inherited.

If some of our forefathers had not been filled with a pioneering spirit of unrest, perhaps the western part of the

United States would not have been settled.

A few causes of unrest may be enumerated as follows:-

- I. The Work Period.
- II. Inadequacy and Uncertainty of Income.
- III. Industrial Hazards.
- IV. Struggles and Rebression.
- V. Attitude of the Government.

I. The Work Period.

Since the beginnings of history, man has ever been striving for a shorter work period. As benefits of leisure became more apparent, the emphasis has been changed from a protest against a long day to a demand for a progressively shorter one.

As long ago as 1791 the journeyman carpenters of Philadelphia adopted a resolution declaring that from six o'clock in the morning till six in the evening should be a days work. The hours of working were determined, in the first fifty years of our history, largely by the length of daylight. By 1835 the building trades had a ten hour day, but factory workers did not fare so well.

The eight hour day did not get under way until the seventies as this seems to be an important part of the program of the American Federation of Labor in 1886.*

* Clarke - History of Manufactures in U.S. Vol.II.
16th Report U.S. Com. of Labor.

In some industries where the plant operation is continuous, as paper mills, steel works and public utilities, the break from the twelve hour day, seven day week has been the last to come to pass because a gradual reduction of hours was impossible without some surplus labor and a staggered scheme of hours, - thought impractical in former times, - and it has been only since 1923, when the American Steel and Iron Institute announced the policy of the eight hour day with three shifts of men.

A surprising thing about the results of this policy so long deferred on account of fears of too great an increase of labor costs, has been the fact that increased production has more than offset the extra labor cost involved.

Since this has been put into effect, there has been a gradual movement toward a shorter week for all, and in 1931 the American Federation of Labor has gone on record as sponsoring a five day week; pointing out that at present over five hundred thousand workers are now enjoying a five day week of forty hours. This is being distributed among forty eight National and International unions, with the building trades leading.

A recent Associated Press article in describing this proposal says, - "Unemployment, such as we have experienced in our country, is manifestly due principally to the fact that wages paid have not increased in proportion to our per capita production in industry, transportation and farming.

The wages paid have been far from sufficient to enable the mass of the people to consume the products of their own industry.

This sound and economic wage which has caused the piling up of manufactured goods in our warehouses brought about periods of depression. The question of a shorter workday and wage rates are closely connected, but the length of the workday is only one of the factors. In determining the amount of production by the wages is the factor that determines the volume of consumption."

The committee, in referring the five day week proposal to the executive council of the metal trades department, expressed the opinion that the movement for this seeming change in the workweek was not as radical as the movement for the ten, nine and eight hour day programs, when the government's and other statistics show that the production for the consuming power of this nation can with the use of the machine and other modern inventions be turned out in one hundred and fifty days with the factories operating at full capacity.

II. Inadequacy and Uncertainty of Income.

In discussing this phase of industrial unrest, Mr. Isaac F. Marcosson has said. * "That while no one disputes the fact that a stabilized currency is the bed-rock of National economic security, yet save in sporadic and isolated instances, we have failed to bring about anything like regularization of employment, which is no less contributory to our human and material well-being".

To some extent interest, dividends and salaried employees are stabilized by building up of reserves to tide the business over periods of depression. The constant fear of a lay-off has been the urge behind the "soldiering" so common in many places. It has impaired efficiency and lowered consuming power. If the job can be guaranteed so far as humanly possible, the whole buying structure is strengthened, and the psychological factor of the human mind is set at rest, and he can concentrate on the work at hand with far better results.

The working of the dole in Britain is an instance where more than a million persons are practically public charges at the present time. Any form of Government aid has proved to be only a temporary device to prolong the day of reckoning. The recent Federal act of creating a farm relief board is a good instance of this. It has not stabilized the price of wheat because it is an international

* Saturday Evening Post. Feb. 28, 1931. Isaac F. Marcosson. The Problems of Unemployment.



commodity. Britain's experiment in trying to keep up the price of rubber, and that of Brazil in trying to stabilize the price of coffee has met with the same results.

A few intelligent employers have shown, "that employment regularization can only be derived out of balanced and diversified production in those industrial laboratories of ours from which mass production and labor saving devices have already emerged."

To properly analyze this requires an analysis of the causes of unemployment. Much has been written on this, but too often without taking into account all the factors. The usual reasons for the recurring cycles of depression with its inevitable labor dislocation are seasonal influences in any businesses; the casual nature of some types of work and workers, waste, extravagance, speculation and inefficient production. In the case of the textile industry they manufactured the goods but made no effort to market them. This put them out of touch with the changing character of the market, and one day they found their warehouses full of goods while the demands of the markets were for something they were not in a position to supply without first rebuilding their whole factory to use new machines and new processes.

This phase has sometimes been referred to as the industrial revolution. In recent times we have had two such major peaceful upheavals.

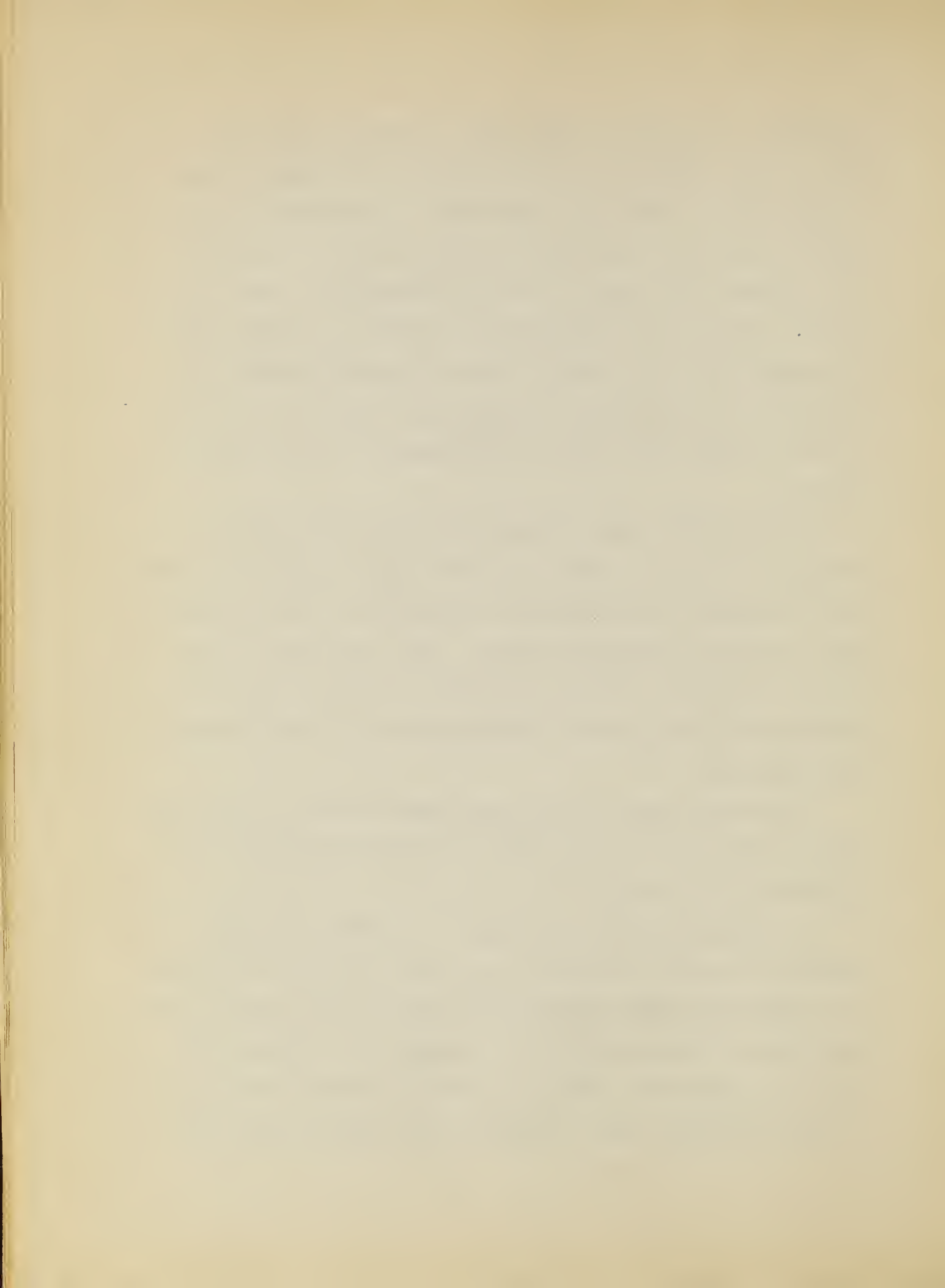
The first was the change from hand-labor and job-lot

production on a made-to-order basis to concentration of labor, using specialized machinery which developed an area of mass output. This has been termed, "A revolution in the tangible methods of management", and as some one has said: "It required a new point of view, a discarding of the old theories upon which craftsmanship was built, a change from the small unit to the great." This transition marked the beginning of technological unemployment. Machines have displaced not less than 2,000,000 individuals in the older industries.

The revolution that followed was more mental than physical. It meant a shift in method. In the words of a well known observer, "It involved the discarding of the practice built around two arbitrary plans." "The first was to make what the management wanted, expecting to find a buyer; the second was to hire men when needed and to fire them when no longer needed."

The second phase of this last named process of evolution leads to the point in mind, that of steadier employment and stabilization of wages.

Mr. Howard Coonley, president of the Walworth Manufacturing Company, of Boston, one of the pioneers in regularizing employment said: "The first revolution was based on the development of time study with its influence on human efficiency and mechanical speeds; on machine design to develop the most efficient unit for correct and speedy production;



on cost accounting that would make a comparison possible and show where economy must be expected; and on wage incentives to create greater earning power for the employee and lower costs for the employer.

The second revolution has been developed on a very different background. Its weapons are market analysis, through budgeting, sound scheduling and broad minded personnel cooperation. A generation ago any item in the category would have been considered visionary. Today each is organized amongst the most important activities of any well organized corporation."

Because of these assets, especially market analysis and long range scheduling of production are part of the equipment and reasons why many farseeing producers have been able to overcome what has always thought to have been unavoidable periods of unemployment.

Another cause of unemployment, that of displacement, has troubled the managers of personnel. In the census of 1920 appeared classifications of industries and work that are entirely eliminated from the census of 1930. Occupations like blacksmithing and wheelwrights are almost completely lost, while others have shrunk to insignificance. Basic industries have felt the encroachment of custom and style. The heated home and the closed car have almost eliminated the spinning and weaving of wool, and the manufacture of woollen garments. Cotton likewise has lost ground to silk and rayon.

At one time the attitude of the hard coal operators was:

"Take it or leave it." Now they are feeling the effects of the competition of oil and gas to the extent that men are on the road as salesmen and teachers trying to educate the public in the proper and economical methods of using hard coal.

The oil men may in turn feel the competition of natural gas, as gas is being piped from Texas to the householder in Chicago and Denver, while a similar change in the status of fuels is under way in the east.

Many a farm today is cooking by electricity, that ten years ago thought the kerosene stove the last word in conveniences. The lumber manufacturers are feeling the change of things to fiber boards for house building and steel for furniture and refrigerators, as well as in the actual construction of the home itself. The railways have felt the influence of the motor bus and truck.

To offset these seeming shrinkages in what was once considered our basic industries, we may glance at the host of new industries not heard of ten years ago, such as radio, the talking motion pictures, lacquer finishes for nearly all items using finish, and the enormous growth of the canning industry. The point made here is that with industry in a constant state of change, the worker is at the mercy of this change. New trades and new habits have to be learned. As President Green, of The American Federation of Labor, has said, "The best we can see is that there is a period of from one to six months during which the employee has to readapt himself to new conditions and new environment."

To return to the thought of stabilization of employment through accurate sales forecasting, market analysis, statistical research, manufacturing for stock, elimination of overtime, more efficient internal management, national or international industrial planning, or balanced production, experience has shown that these items properly integrated will serve to help solve the problem of seasonal unemployment and perhaps provide work in times of depression.

Private plans for the prevention of industrial instability fall into two main groups. One is the scheme for regularization of plant operation and employment; the other, the indemnification of employees for whom no work is available.

The first plan of stability of production needs first to find some method of balancing the fluctuation of demand brought about by the excesses of both the purchaser and consumer. Any scheme must therefore first break down buyers' habits and sellers' prejudices, but as we make progress only through change and we have had it in the change from sail to steam and from hand made to machine made commodities, it can be done when every manufacturer realizes the gravity of the situation and sets himself to the task of accomplishing it.

One example of what has been done toward this stabilization of employment is illustrated by the Proctor & Gamble Company, well known soap manufacturers. Their plan stood up through the 1930 depression. Col. William C. Proctor says, "Employee welfare is an excellent thing so long as it does not coddle the worker. Hospitals, clinics, sanitation, and

all the other aids to the right kind of working environment, have their place. They do not, however, perform the task of achieving two all-essential things. One is the economic independence of the employee. The other is immunity from the fear of losing the job."

The Proctor scheme came about by way of the economic independence route. It was expressed in profit sharing, but not in the conventional way. At first the employees received a dividend check in proportion to their wages. This was discarded, as too many regarded the check as a portion of their wages and spent it as such. The next scheme was to set aside a fixed proportion of the wages each year to be used for the purchase of company stock. The dividends are placed to the workers credit and contribute toward payment.

Some unusual results have been achieved. In the Cincinnati plant a laborer who never earned more than thirty two dollars a week had accumulated more than five hundred shares of stock worth at one time \$700,000. A blacksmith who began to subscribe in 1903, through thrift and the purchase of additional stock and its enhancement was worth \$56,000 in 1919. A die maker who retired last year has an income of \$12,000 a year.

The next phase of this scheme is the plan which guarantees forty eight weeks of work each year. No employee is eligible to this guarantee unless they have purchased stock. More than ninety five per cent of the workers have taken advantage of this job-guaranty.

Proctor & Gamble are able to offer forty-eight weeks of employment each year, because they have been able to estimate their sales. They can store against peak demand. Although soap is a staple the demand from the jobbers fluctuated from month to month, and speculation entered in at times. It was discovered that throughout the year the consumption of soap was steady, therefore the job of the factory was to estimate the year's demand and to set the production for each month so as to meet this consumption during the year. Part time and overtime work has been eliminated from this plant. The net result of this plan has been that the plant has been able to estimate within two thirds of one per cent of the actual sales for a period of seven years.

To summarize the aims of the Proctor & Gamble Company, they believe that the big factor in any man's life is a steady job that can be counted on to bring in a pay envelope for at least forty eight weeks a year. This will enable him to plan a home, the education of his children, budget his necessities and become a better citizen.

The General Electric Lamp Company is another company that has been able to guarantee fifty weeks of work including a vacation with pay. This was put in effect January 1, 1931. They state that lamps, like soap, are a staple commodity and subject to little change and the long-time scheduling of production can be worked out, but in some other departments like the turbine, where all work is done on order, there still are

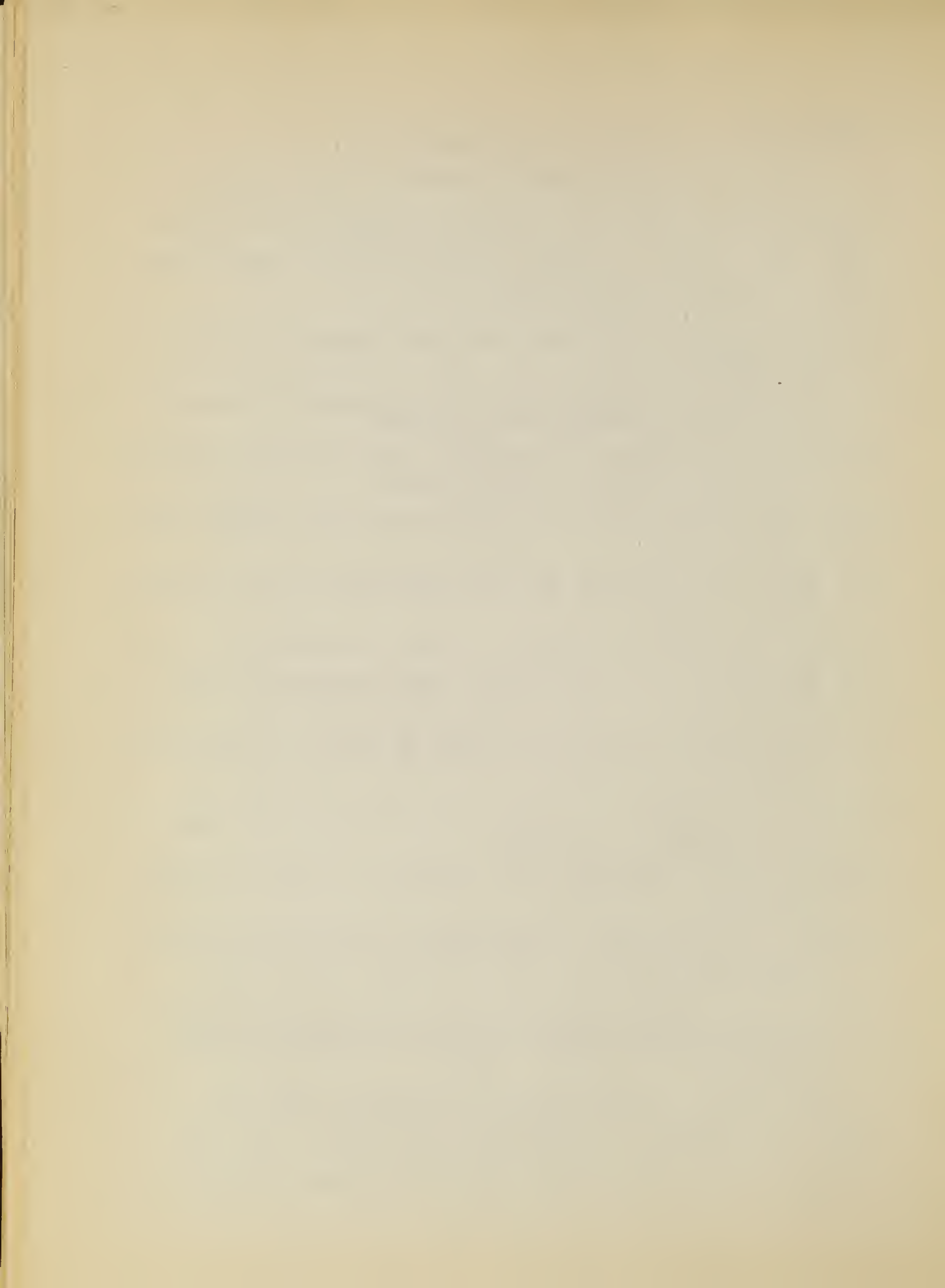


difficulties in the way of steady employment.

However the General Electric Company has an employees' unemployment insurance plan that has recently become effective. The company has issued a code of factory conduct which will be reproduced here in part.

- (1) Increase the working force by adding employees as slowly as possible.
- (2) Increase the numbers in the busy department by transfer from other departments where possible.
- (3) Resort to overtime in particular departments and generally before increasing the working force.
- (4) When business falls off, these injunctions obtain; cease hiring at once.
- (5) Cut out all overtime and bring departments down to normal week.
- (6) Transfer people from slack to busier departments.
- (7) Stimulate sales department to secure cooperation from customers and get business for future delivery.
- (8) Build apparatus for stock, based on average of last three years' sales, and adjusted to expectation of next two years.
- (9) See that stocks at all factory and district warehouses are brought up to capacity.
- (10) Use men on maintenance work, bringing up plant to a high standard.
- (11) Cut the normal week as generally and gradually as possible, by departments, down to fifty per cent of the normal week.
- (12) Proceed with the construction of increased plant facilities previously planned, using our own men as far as possible.

The details of the unemployment insurance plan for those who subscribe - participation is optional - each employee has one per cent of his wages deducted and paid into

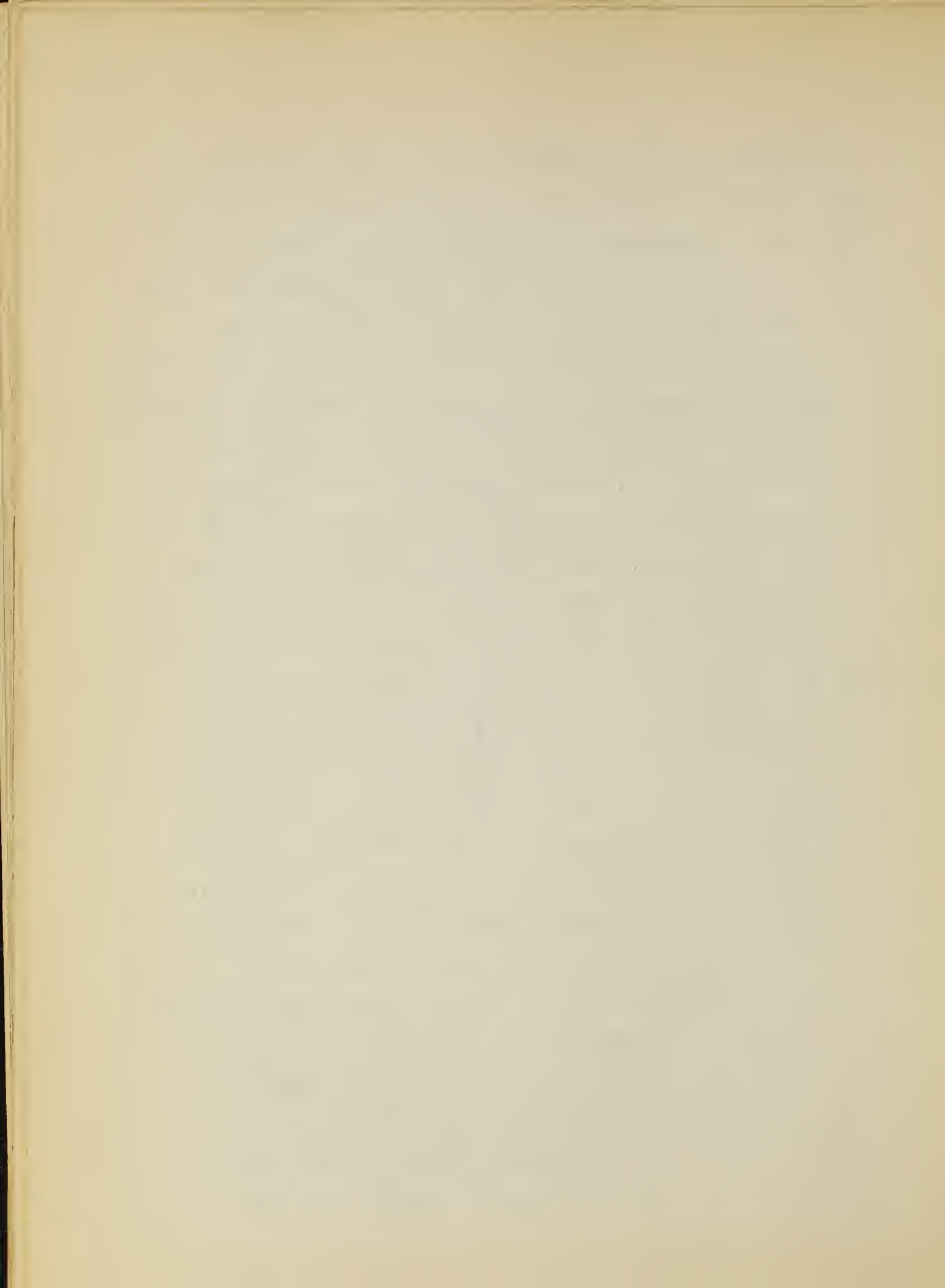


a trust fund. This is matched by the company, and five per cent interest is added. After an employe has been idle for two weeks he receives fifty per cent of his average wage or salary up to thirty dollars a week. It is expected that this fund will reach the total of \$3,000,000 within two years.

The Dennison Manufacturing Company is another outstanding example of a company with a seasonal output that have achieved. The seasonal character of some of its lines has been removed by good salesmanship. Other lines have been supplemented by various means to keep the machines busy. Advertising is done during dull periods. The employment program includes long range stock planning, adding special items to supplement stock items, building up out of season business, training operators for other jobs, and a careful study of the business cycle.

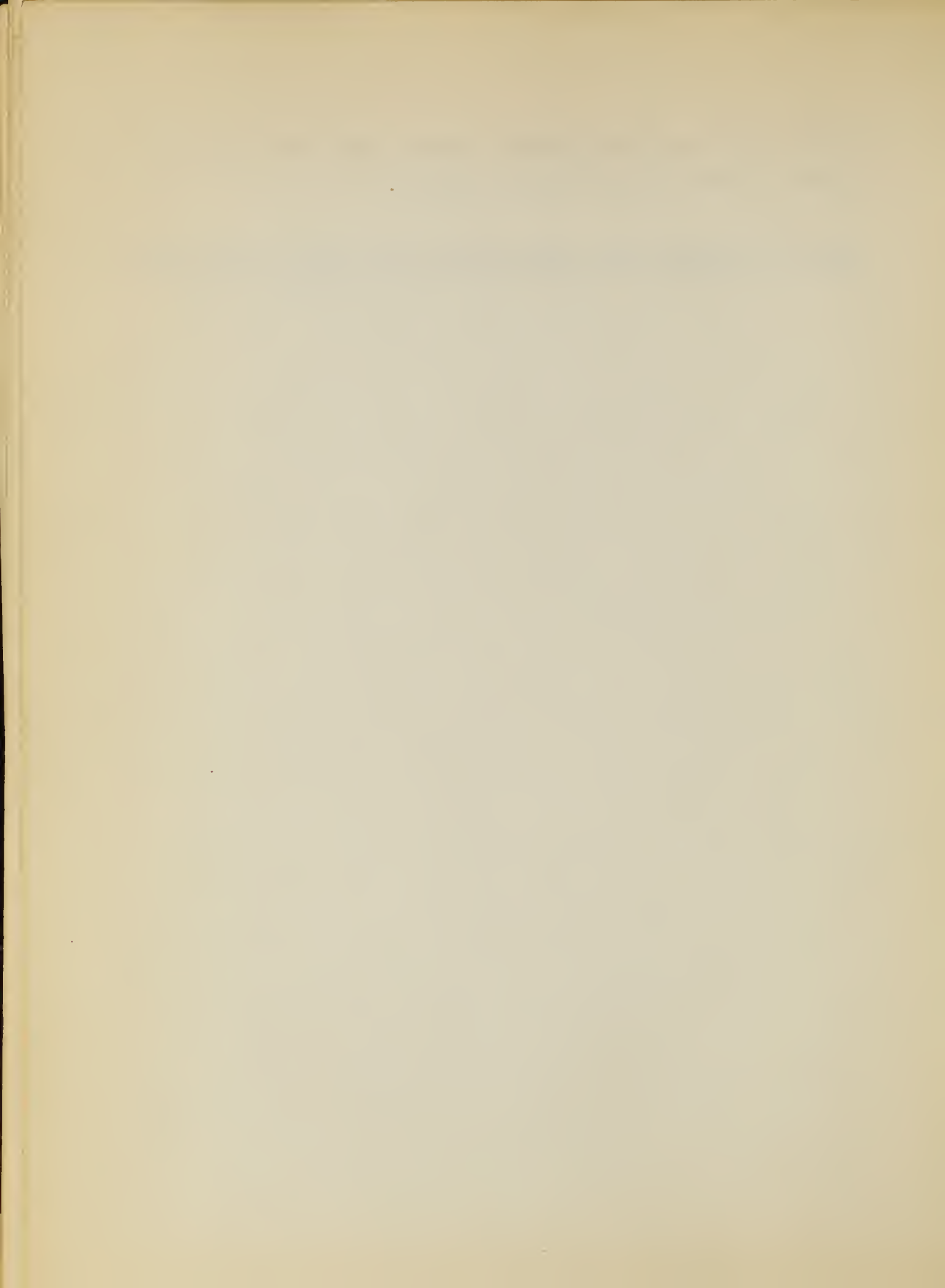
The procedure of the Beech-Nut Packing Company, and that of the Walworth Manufacturing Company involve similar procedures that would seem to indicate that the plans for stabilizing employment that have been previously discussed are sound and no doubt are in vogue in many other plants.

Among the more prominent plants that have stabilized their labor turnover are the International Harvester Company, United States Rubber Company, Standard Oil Company of New Jersey, Standard Oil Company of Indiana, Proctor & Gamble Company, Tennessee Copper and Chemical Company, American Radiator Company, Packard Automobile Company, Endicott-Johnson Company, Dennison Manufacturing Company, Walworth Company, Knox Hat Company, Columbia Conserve



Company, Dutchess Manufacturing Company, Leeds and Northrup Company, and the Hills Brothers Company.

(List from the New York Times, October 12, 1930. Louis Stark - Labor and Industry Now Offer Various Unemployment Cures.)



III. Industrial Hazards.

This topic is sometimes discussed as an incident to the wage earners living. It seems pertinent to elaborate on this as it is a large factor in our industrial world today.

The average wage earner does not work every day. There are various factors that enter into his life, such as accidents and other hazards incident to his occupation. There are no statistics of industrial accidents covering the United States as a whole. It is therefore necessary to rely on the statistics available from such states where provision is made for their collection, and also recall that the Federal Board for Vocational Education has a rehabilitation division.

As Inis Weed Jones * says; "We are today in the midst of a second industrial revolution. Machine production is one thing; mass production is quite another. Its speed and intensity have created a new set of problems.

A concomitant of both these industrial revolutions has been and still is the train of accidents, including industrial disease, suffered by the workers, and the financial loss sustained by both employes and plant owners. It is only recently that the full extent of the manufacturer's loss has been made apparent through the scientific study of accident prevention."

Twenty years ago it was hardly respectable to advocate

* Inis Weed Jones - Safety for Workers - for Employers.
World's Work. June 1930.



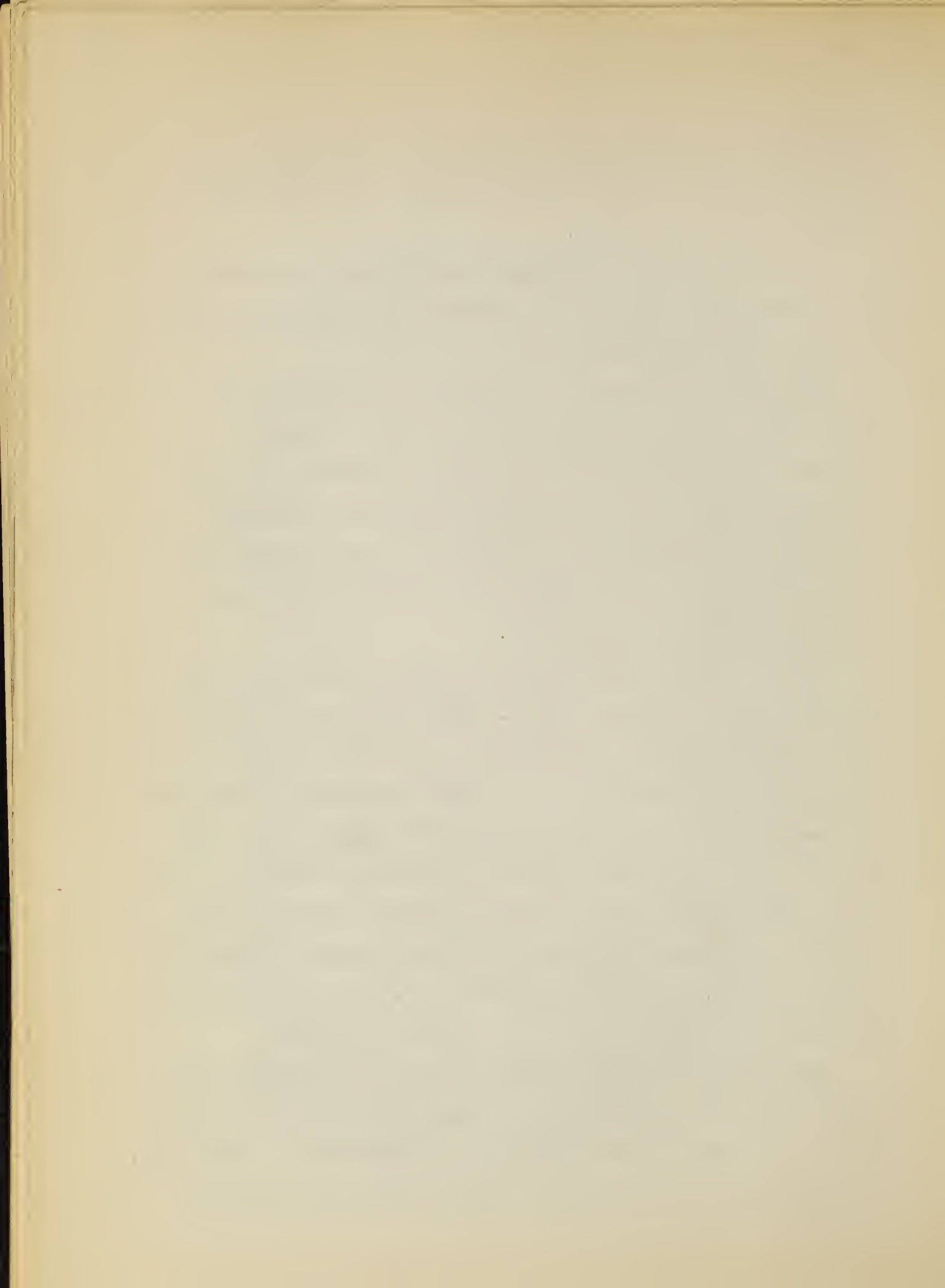
labor laws, and those who did were called "visionary" and while well intentioned, were ignorant of the trouble that their program would cause.

However as time went on the public became aware that there was something in their arguments and became interested in labor protective legislation.

This was met by bitter opposition on the part of the manufacturers, partly through fear of damage to their business and partly through fear that the public would have something to say as to how their business was conducted. Even the insurance men had a hard time to sell casualty insurance as they did not point out the savings to the manufacturers by carrying insurance.

"By 1920 a vast accumulation of bad practices had been cleared up in the better plants. The previous ten years had shown such significant decreases in the accident rate that it looked as though safety work was making headway. -- Then with the war was extension of mass production. The accident rate began to rise alarmingly both in frequency and severity. The last estimate had shown more than 2,500,000 workers injured annually - the number of those sustaining partial disability being over 105,000, the number killed 23,000, and the cost to employers and employees more than a billion dollars."

The National Bureau of Casualty and Surety Underwriters, through Mr. Albert Whitney, after much time and investigation said, "I am convinced that safety is a byproduct of efficiency. I believe that a wide survey of those plants with the best



safety records will show that they are also the shops with the lowest cost of production. The reason safety is doing so little to control accidents is because it is generally regarded as something extrinsic, something added onto the activities of a factory just as builders add on the trim of a house, whereas it is really something intrinsic, an inherent part of the structure itself. Industrial safety proceeds from the perfect functioning of a plant."

After many conferences with the members of the American Engineering council they came to the conclusion that the most efficient shops were the safest shops.

Mr. Whitney secured a fund from the bureau of insurance underwriters whereby the engineers could make investigations of over a thousand industrial plants employing several million men. The test of this new organic concept was conclusive; the most efficient shops are the safest shops.

By adopting adequate safety measures such concerns as the Bethlehem Steel Corporation with its 70,000 met cut its accident rate in half, the United States Steel Corporation cut its accident rate 86 per cent and the International Harvester Company 76 per cent. The Union Pacific Railroad - our safest system - has a safety record five times as favorable as the average large railway system. The Du Pont powder plant decreased its accident rate 90 per cent in seven months. The Buick Motor Company quotes a saving of \$300,000 in five years work and protected three thousand men.

West Virginia likewise, has been a sore spot for many years to the eyes of those who have been preaching safety in industries. The soft coal mines of this state are so saturated with methane that a freshly mined lump held to the ear gives off faint sputterings of the escaping gas. For many years there has been a succession of mine disasters with many lives lost and property destroyed.

Through the earnest efforts of Mr. Robert M. Lambie, chief of the West Virginia Department of Mines, his eight year campaign has produced results. The coal operators of that state all stand behind Lambie and his work, proud of the fact that their state is outstripping others in its precautions against further mine slaughter.

Through the cooperation of the United States Bureau of Mines, there are eleven mine rescue stations strategically placed throughout the state, each under the supervision of a safety director. These stations house a truck, self contained oxygen breathing apparatus, gas masks, an Orsat type air analyzer, pulmotor, tools, stretchers, medical and surgical equipment. In addition, many of the mines now possess equally elaborate rescue apparatus and also rescue crews, squads of six men each trained for the underground hide and seek with death that must follow mine disasters. The state pays these teams while on duty, and each year they compete for prizes at West Virginia's Safety Day.

Twenty six inspectors supervise every pit, suggesting

warning, or compelling, if necessary, the operators to take needful precautions. As a last resort they can close a pit until the operator installs the necessary safety devices.

Safety meetings are held regularly throughout the fields. Miners are urged to attend these, and experts of the state of Federal service address them on the best methods of avoiding disaster. The educational program also includes night schools for miners and a two year high-school course in the principles of soft coal mining.*

A "rescue car" of the United States Bureau of Mines is constantly moving throughout the state, spreading the idea of safety, although the car is really more of a traveling schoolhouse than a first aid unit.

One of the unique devices developed by the safety campaign was the discovery that if the walls and floors of a coal mine were freely dusted with powdered limestone it effectually prevented the after fires that might follow an explosion of the methane gas. This device alone has saved hundreds of lives.

At present the state has a compulsory mine law, but it has taken a great deal of earnest work to bring it about. Similar incidents have taken place in other states where through the cooperation of the Bureau of Mines much progress has been made in safety work and safety laws.

* Worlds Work May, 1929.

Frederick F. Van De Water - Eliminating Mine Slaughter.

Such states as Massachusetts and New York have made progress in safety legislation and inspection, so that any operation or machine had to be as fully guarded, and the operators provided with such safety devices as are possible to use. A few might be mentioned, such as exhaust fans and hoods for lacquer spraying or sand blasting. Electroplating tanks give off poisonous fumes that must be removed. Wood and shoe working equipment must have the dust removed, and inspectors are constantly supervising the guarding of belts, gears, and electrical appliances with a view of decreasing the hazards of industry.*

* World's Work April, 1930.
Francis Parkman, Industrial Crusader.

IV. Struggles and Repression.

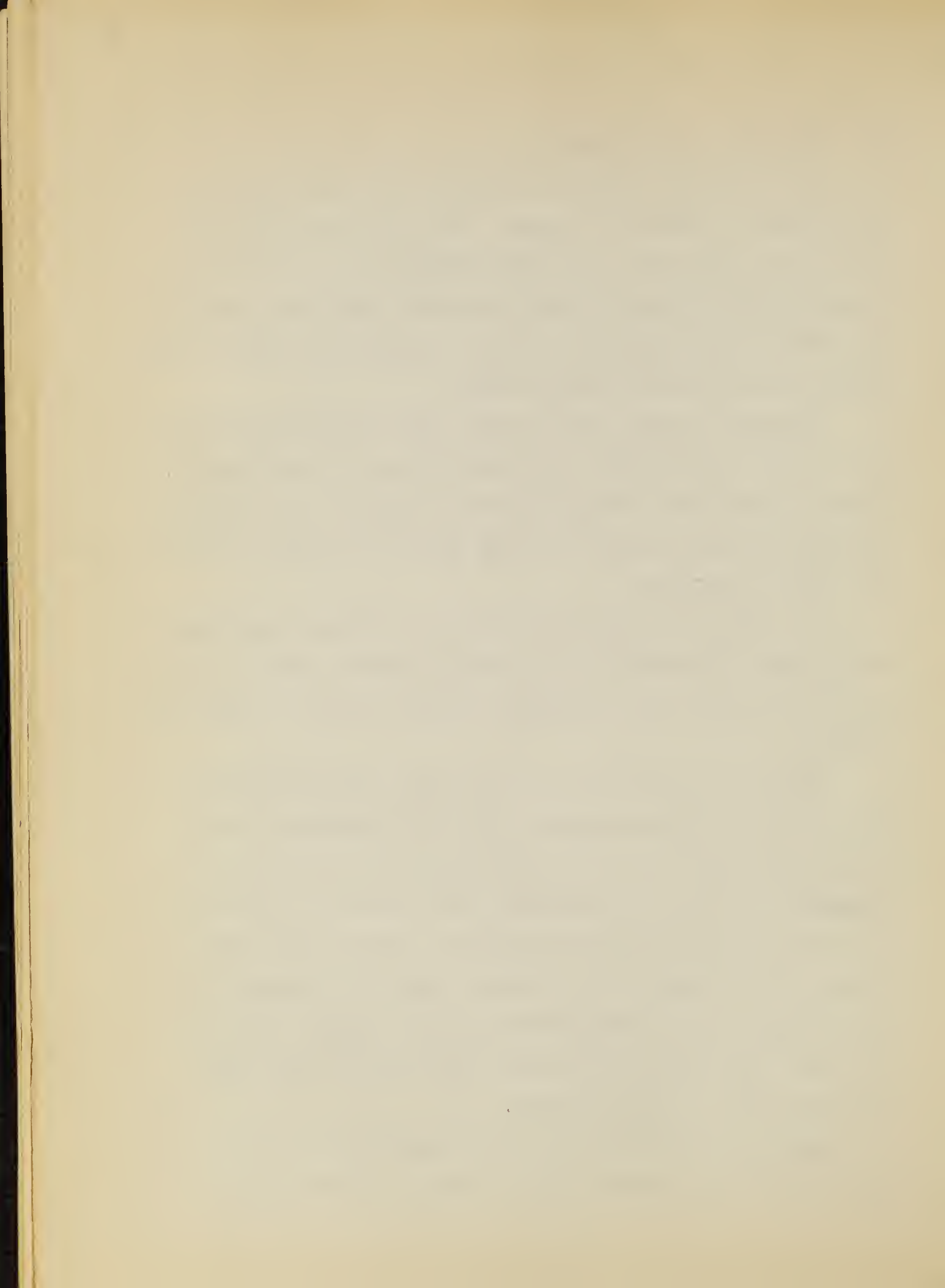
Many books and magazine articles have been written on this phase of industrial unrest. The causes range all the way from a "dirty look from the foreman" to being forced to work in places of actual danger to life without any adequate safeguards, such has been in vogue in many places such as coal mines, steel mills and boiler rooms.

In general we may say that the worst labor relations are to be found in the small shops, and there, as a consequence, occur the bitterest struggles between employers and employes. The large standard plants will not stoop to the mean tricks of the smaller employers.

Yet much can be said in favor of a personnel department and employe representation to provide a closer contact which should, and often does, provide a greater degree of industrial justice.

Whenever a business is so large that petty executives can bear down on the workmen, without the knowledge of the higher executives, and the workmen have no opportunity to appeal to the higher authorities, then there is a need of some form of employe representation to rectify this shortcoming. When grievances go unheard, and real injuries go uncorrected, with no machinery to let the employer know of the real conditions in his plant, then there is real need for some form of closer contact.

Employe representation does not necessarily tend to undue familiarity between the two groups, but it opens a



way for averting trouble when it might arise.

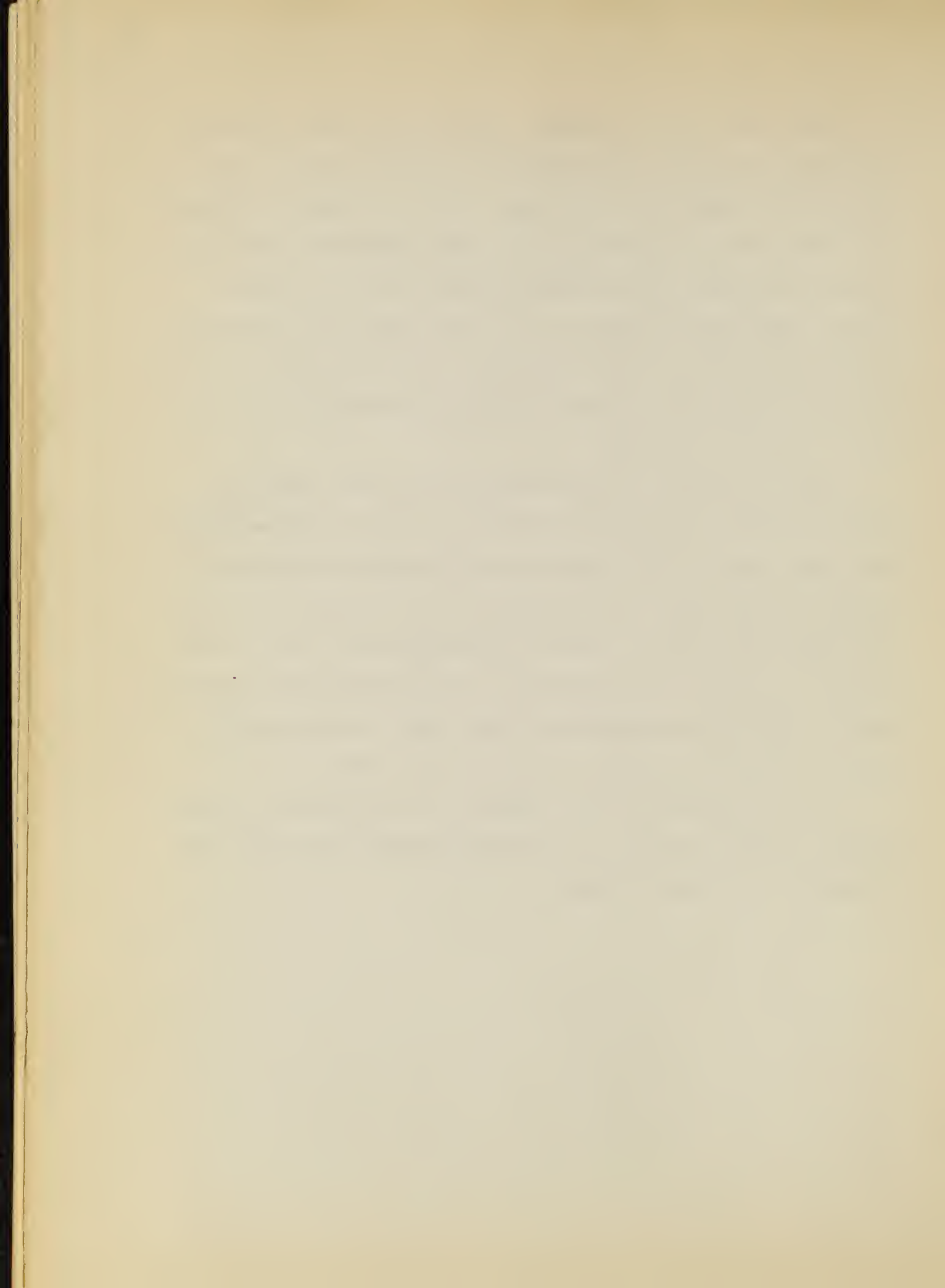
After the war when so many plants were still in the mushroom stage, there was much industrial unrest. They had been flattered and given all sorts of promises to keep things going during the war and in some cases had been led to feel that, when world democracy was once attained, the worker would promptly come into his own. Instead they found themselves in the midst of a business depression, competing with several million returned soldiers for the relatively few jobs, forced in some cases to accept considerable reductions in pay. They were further disturbed by aggressive campaigns for the open shop, waged by strongly organized employers associations. These circumstances may have been unavoidable, for the most part, but were ample to cause a very bitter resentment among industrial employes, and to lead the despairing workers to declare strikes even in the face of almost certain defeat.

The problem that confronted the employers then, was to overcome this resentment, and regain the confidence and co-operation of their employes. President Wilson called two industrial conferences: both being unsuccessful in accomplishing the desired end, but laid the foundation for plans that after being widely discussed, finally influenced some employers to adopt the works council idea. The works council has had quite some success in many industries, providing the medium through which many dissatisfactions have been evaporated into harmless discussions, when the viewpoint of both sides was compared.

The larger view of employee representation has resulted in reducing ill will and industrial conflict and has materially aided productive efficiency. It also is very effective in checking the idiosyncrasies of petty executives, and also inspiring confidence and developing good will by giving a prompt, sympathetic hearing to all complaints and grievances, it being important in the interests of good feeling, to assure the workers that their interests are looked after, and they have an advocate at court.

Another result that was hardly seen at the outset was the development of special committees in various departments that have brought forth suggestions for better production methods, improvement in the quality of the product, and many suggestions that are of value to the management because they are made by men in touch with the work and naturally know how certain things are progressing better than the management because of their intimate contact with the work.

The introduction of new policies, and problem of foreman training in many cases is greatly simplified where labor has a chance to hear and be heard.

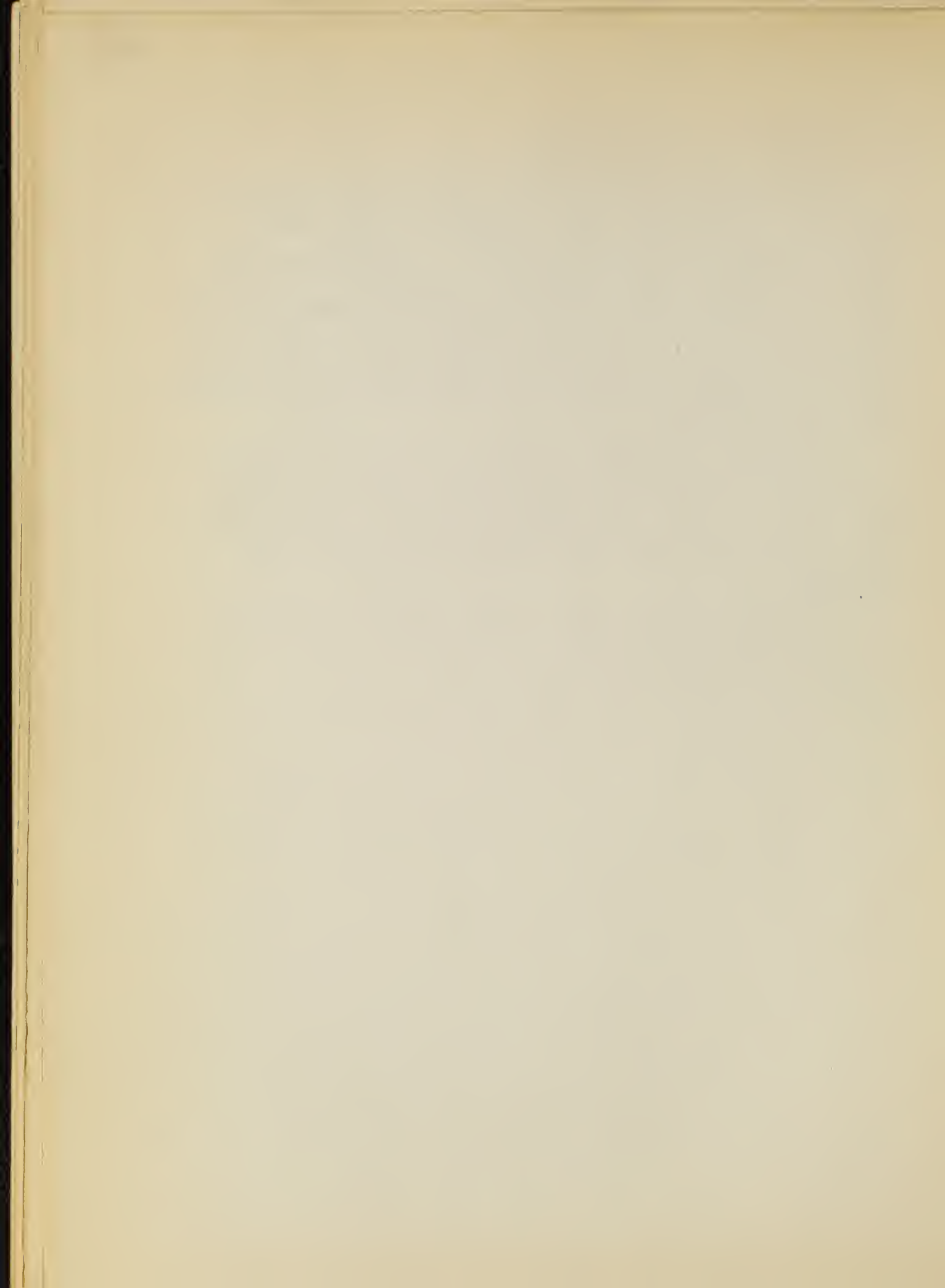


V. Attitude of the Government.

Much misinformation has been quoted in many places to show that the government has no interest in the private citizen and only tried to keep him in a downtrodden state with only a few of the very elect permitted to share in the spoils of politics. It has been stated that the Government would in time run all business and every one would be simply a cog in the machine.

These views have been drastically upset by President Hoover's veto of the Muscle Shoals Bill, and may set many minds at rest as to the real aims and functions of our Government.

President Hoover's stand on this point will be quoted later, to clarify this point.



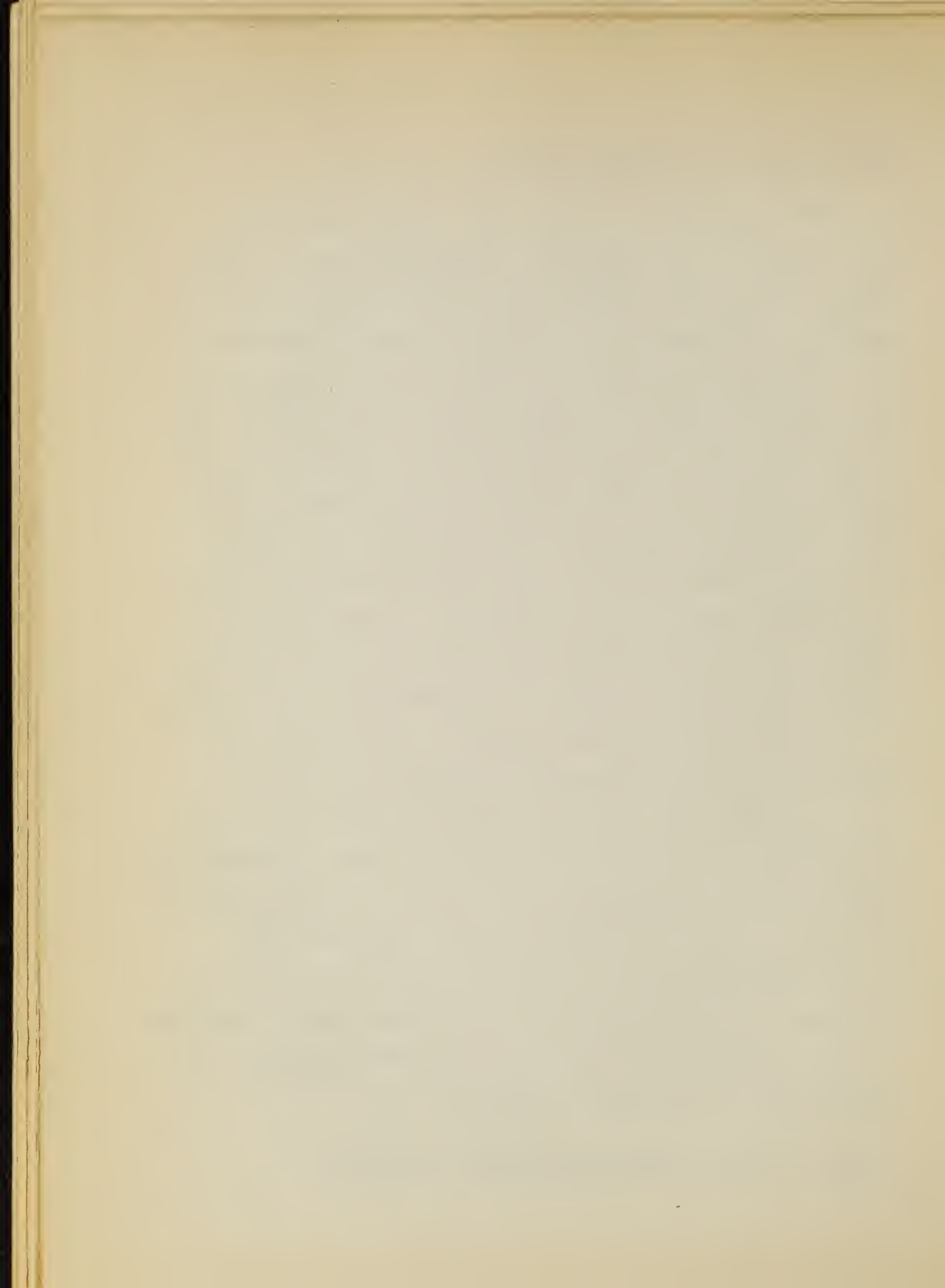
The Beginnings of Organized Labor.

It is sometimes said that labor organizations came as a result of the inventions of machinery and the development of the factory system.* This is not exactly accurate. Machinery and factory were parts of the great change that was taking place and came in common with labor associations but were not the cause. Organizations of hand labor in some crafts came fully a half century before the factory and its machinery. By the beginning of the eighteenth century the typical journeyman tailor in London had become a lifelong wage earner. One of the earliest permanent unions was among the tailors. There was no association of laborers where the divorce from opportunity had not taken place. The factory system hastened the formation of unions but did not cause it.

The beginnings of labor troubles in America has the * background of similar experiences in England, as all the legal precedents and political principles were for the most part brought over from England. Settlers came to America with trade experience and many sought to pursue the same trade as they had in the past. When the wave of suppression was sweeping over England the news of it came to our shores immediately, and influenced our procedure here. This culminated in the sweeping legislation of 1799 and 1800, condemning all combinations in restraint of trade.

* Groat. Organized Labor in America. Page 12.

* Groat. Organized Labor in America. Chapter 2.

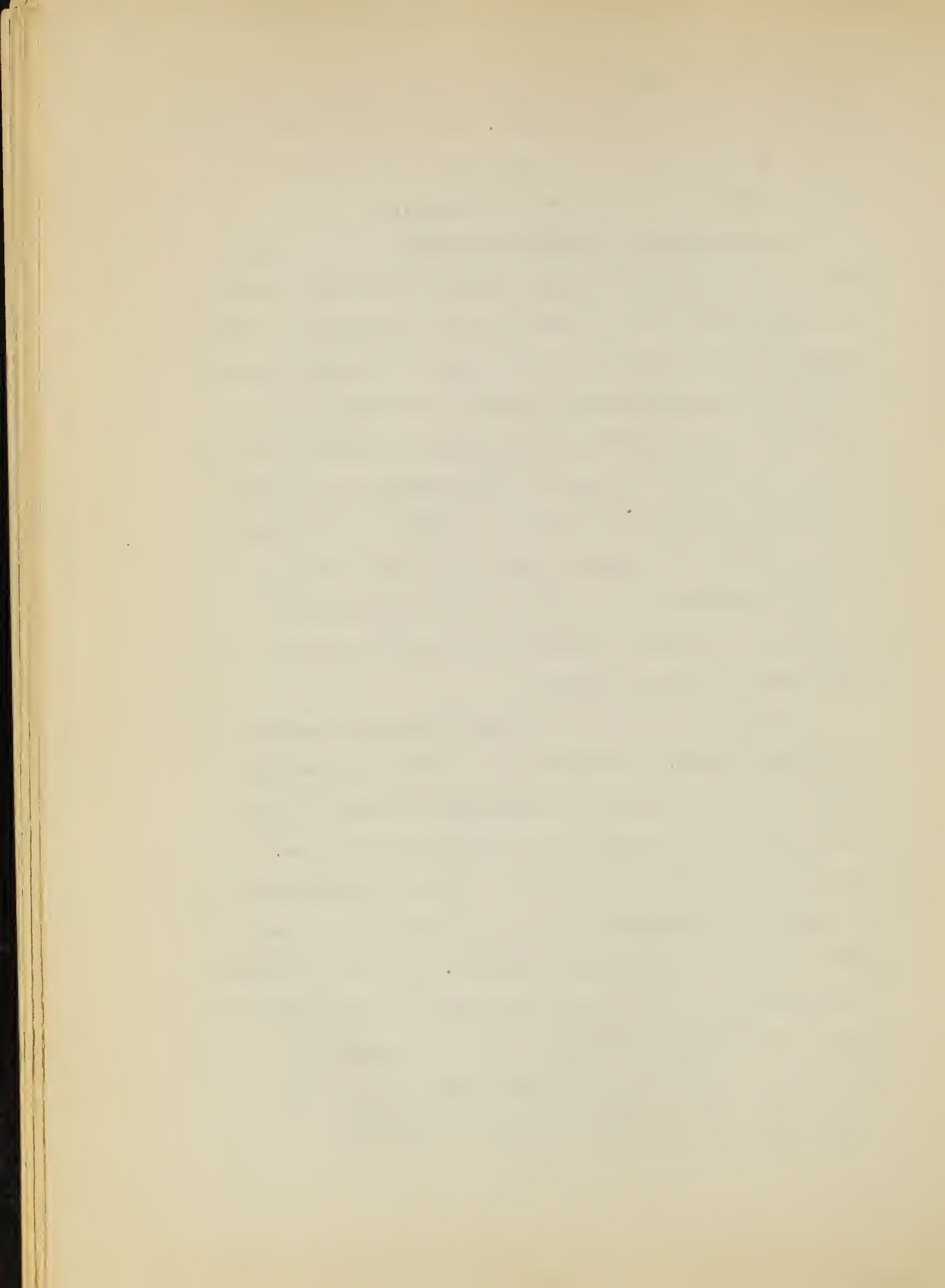


It is to be doubted if the laws were enforced here as rigorously as they were abroad. In 1648 two guild charters by the Massachusetts Bay Colony, one to the shoe makers and the other to the coopers of Boston.

Professor Commons has pieced together a very complete story of the origin and development of the shoe industry in America from 1648 to 1825, in the first part of which appears the account of the beginnings of Capital activity through the accumulation of stock, the going out after trade, the organization of the business so as to provide shoes of different grades of workmanship, and booking orders that could not be filled without a differentiation of the labor with respect to the skill and wages, all of which opened the way for the most aggressive to become entrepreneurs and leaving those that lacked initiative to become workmen.

To sketch the story of organized labor in America is a difficult task. It cannot yet be told in its final form, since its records are constantly coming to light and modifying that which has already been written.

"Little or nothing was heard of labor organizations in America one hundred years ago," writes Professor Elv, in 1888, in *The Labor Movement*. "I find no traces of anything like a modern trades-union in the colonial period of American History, and it is evident on reflection that there was little need, if any, of organization on the part of labor at that time.

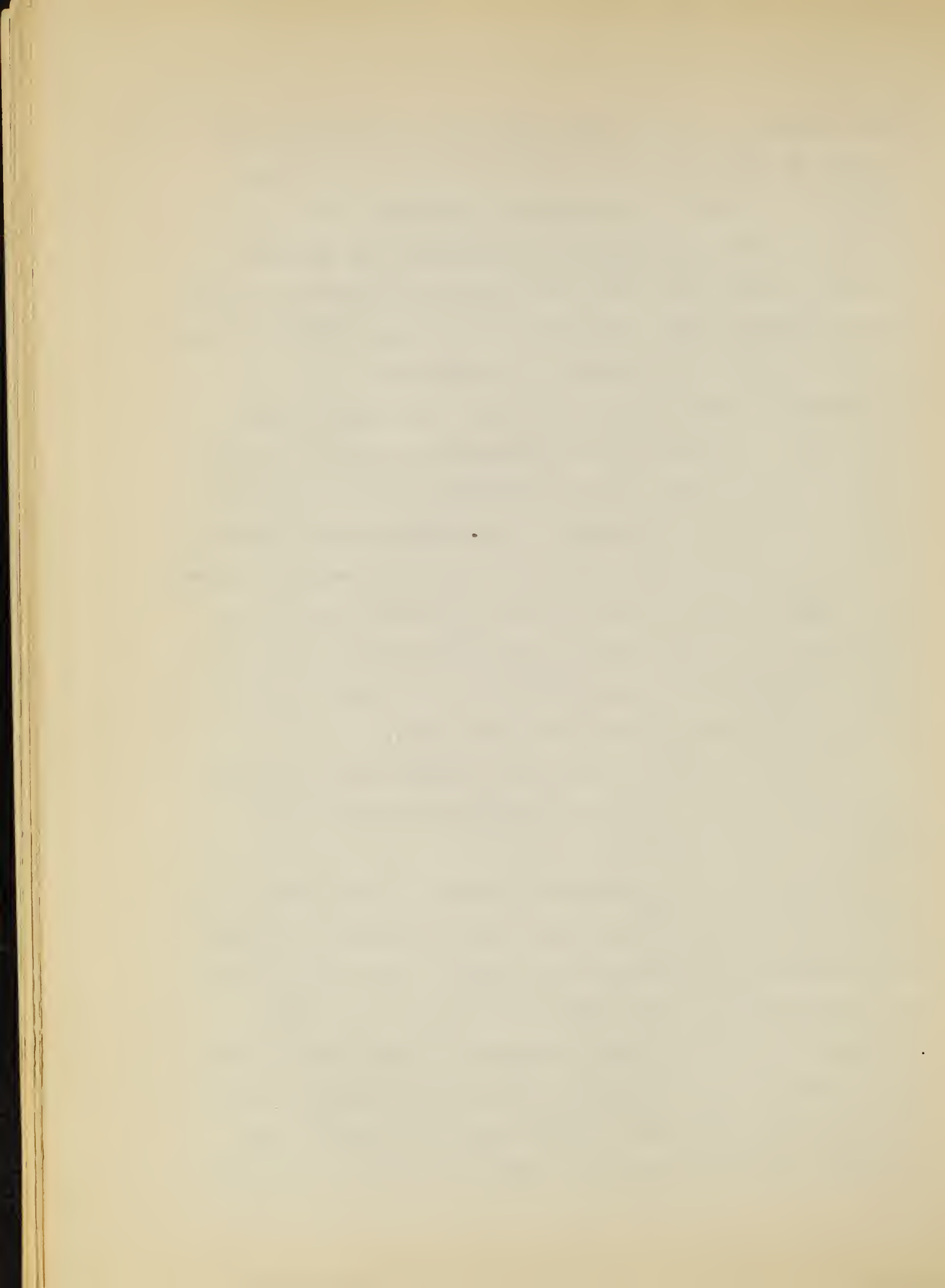


Early societies. Among these societies, the Calkers Club, existed in 1724 and while a trade society it functioned largely to control the selection of political officers. In 1803, the New York Society of Journeyman Shipwrights was incorporated, and three years later the house carpenters were organized. Also about the same time the tailors, hatters and the typographical society was organized.

Second Period. This period dates from about 1812 to the Civil War. In industry its characteristics were the growth of the factory system and the beginnings of the aggregation of capital. This development was influenced on the financial side by important developments such as irregularity in banking practices, variations in prices, the differing policies in controlling the public lands, the tariff changes, and the slavery question. In these agitations the workers were directly interested and took an active part.

Mention has already been made of Robert Owen who came to America in 1824. He was received with enthusiasm and listened to with thoughtful attention.

Owen's agitation directed attention to the needs of the workers and the ballot appeared as the instrument by which many reforms and advantages were secured. The problems and the organizations of that time however were of a quite different type than we have today. The laborer was for the most part much more independent than at the present time as he could by economy save a little money and acquire some property or land and quit his employer's business if he saw



fit to do so.

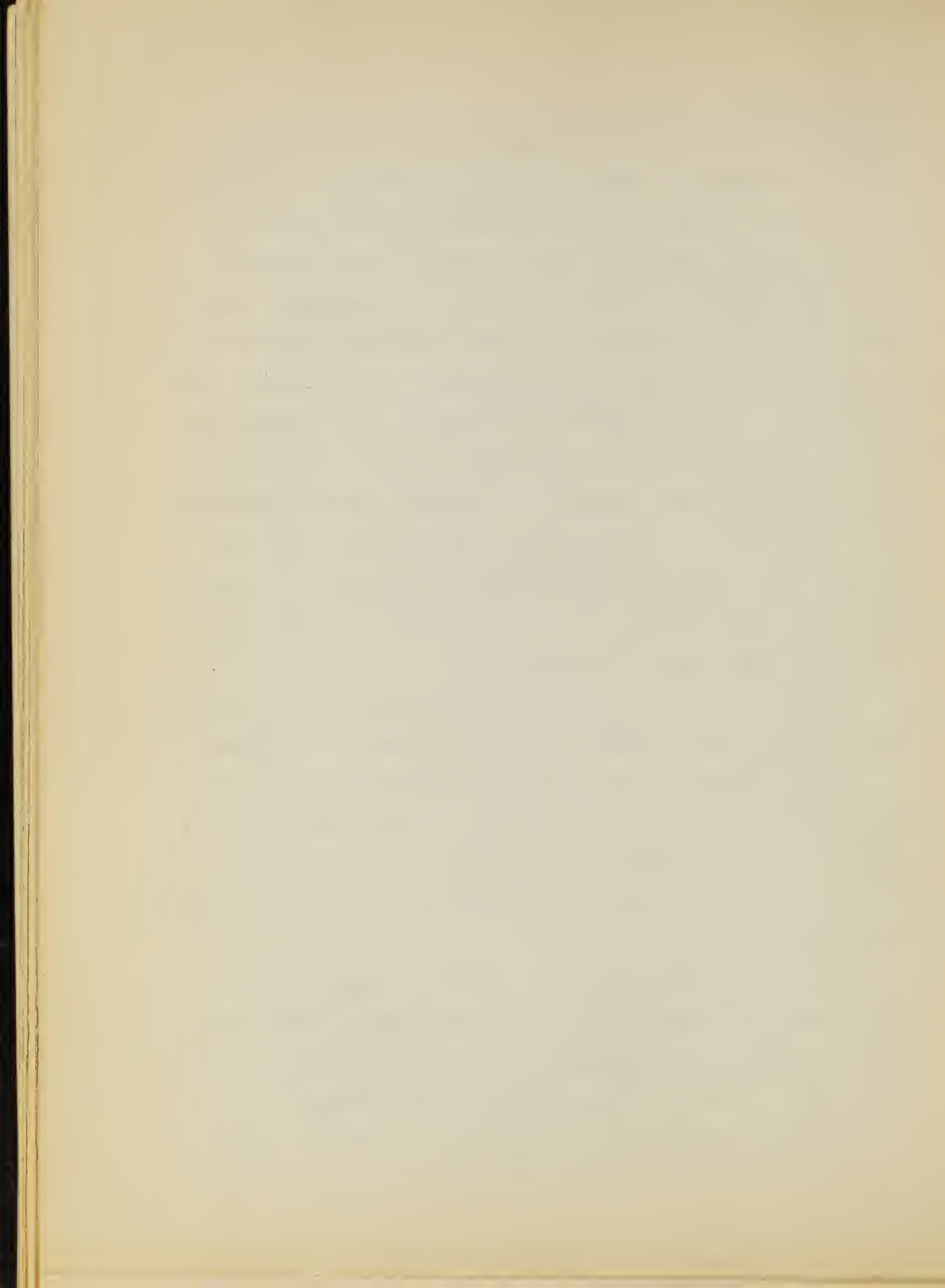
Third Period. This phase of events, dating from as early as 1855, shows that trade unionism was taking the form that we now have. Shorter hours and higher pay, formerly the leading issues, were now joined to issues of the minimum wage, the closed shop, the restriction of apprentices, and the secrecy of proceedings. As characterized by the editors of Documentary History; "It steered clear of all programs of social and political reform, and confined its activities to improving the conditions of the trade. Its main weapon was the strike: its aim to establish a minimum wage for the trade and to maintain it by means of the closed shop. This new program made possible trade agreements between unions and employers, which fixed for a stated period the wages, hours, and other conditions of employment."

The close of the Civil War ushered in the day of organizations, that have played the central figure every since.

This organization of industry was paralleled by a similar centralization or concentration of labor organizations. These at first as locals were merged into central bodies, these in turn into state federations and finally into national organizations.

The oldest union is the International Typographical Union, followed quickly by others, and in 1863 the Brotherhood of Locomotive Engineers was formed. (This during its first year was called, "Brotherhood of the Footboard.")

By 1860, as Coman says, "More than a score" of unions

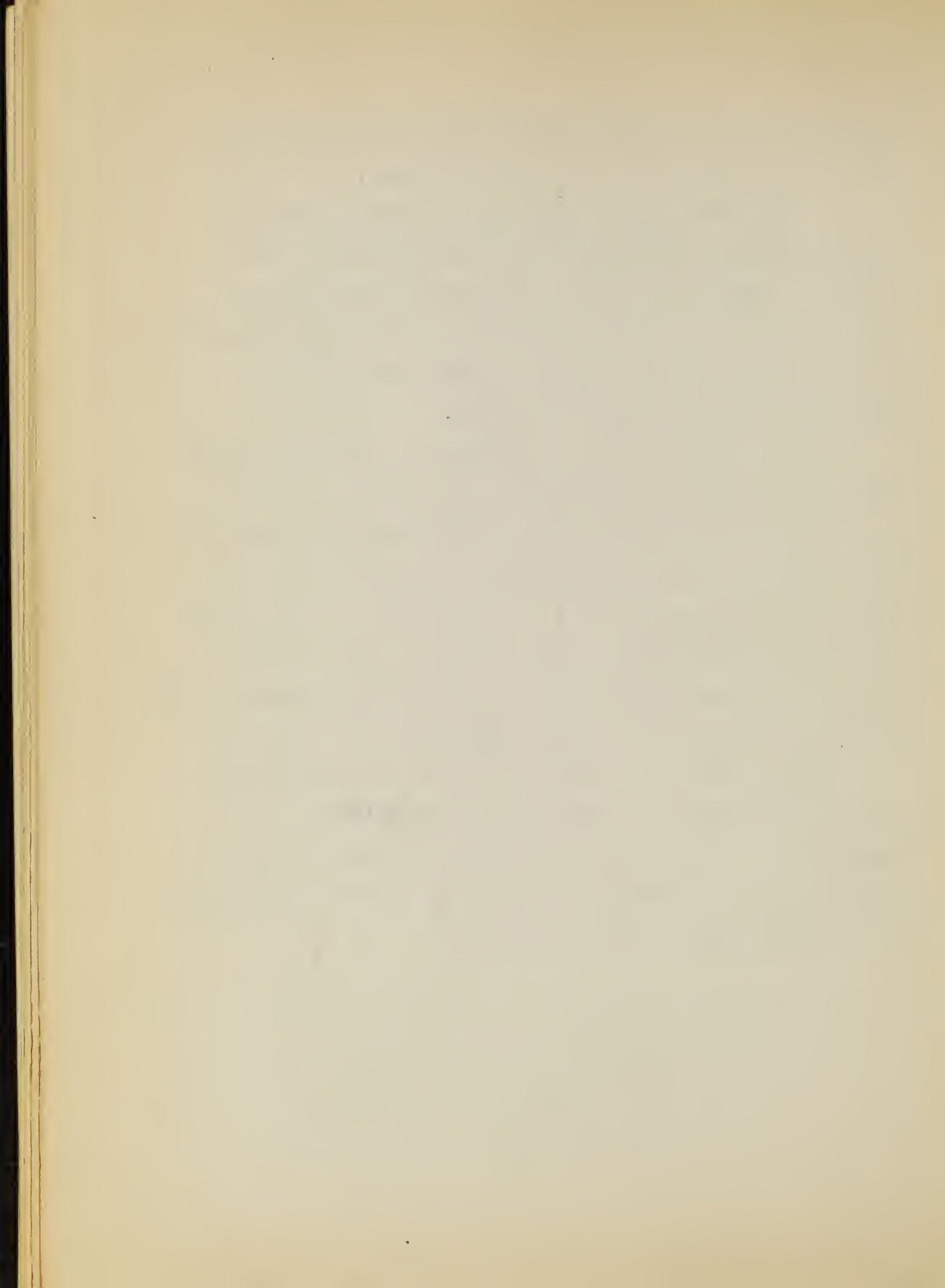


had been formed and by 1868 "Some thirty or forty national trade organizations" had come into existence.

It would seem well at this point to mention another labor organization that came into existence during 1870, called the Knights of Labor, beginning at first with the tailors as a result of the dissolution of the union of garment cutters, following the scandals of Army contracts that had undermined the standards of the union.

The motives and aims of the Knights of Labor were high. One of its founders in discussing the prospects of forming a new society at the time of the dissolution of the union of the garment cutters said that he had been looking all his life "For something that will be advantageous to the masses; something that will develop more charity, less of selfishness, more of generosity; less of stinginess and meanness than the average society has as yet disclosed to its members."

As it proved by the passing of time, the Knights were a dual organization in a trade as it paralleled the labor assemblies. As a result of this and the losing of several strikes, the order suffered a decline and at present there is little if any signs of its activities.



The American Federation of Labor.

In 1881 there was a call for a convention to meet at Terre Haute, Indiana. Its object was supposed to have been to supplant the Knights of Labor by some other organizations. The outcome of this and later conventions was the growing consciousness that more could be done by one strong body than by several unrelated societies. The beginnings of what is now The American Federation of Labor had its inception at this time. "In order to preserve the continuity in the organization this last Federation, in 1889, dated its origin and numbered its conventions from the beginning made in 1881.*"

"The American Federation of Labor is at present the strongest organization in America and ranks high among the labor organizations of the world, the sovereign organization," writes John Mitchell, "in the trade union world." "Its history since its inception is one of steady growth, of consistent policy and aggressive management. The results appear in a powerful organization with all the force of a highly centralized body and all the power of a thoroughly democratic society. Its success may be attributed to a few important points of policy by which it has welded together the conflicting interests of many trades and held them with all the strength of a single purpose.

* Groat - Organized Labor in America. Page 85.

It has avoided the shoals of politics which have wrecked so many strong associations in the past. It has consistently left to separate trades the direct control over the differing trade interests, thus avoiding the dangers of internal strife. The weakness arising from too many diverse interests in conflict has given way to the strength of united action where it is possible and to non-interference in trade interests where it is necessary. On these few simple principles the American Federation of Labor has builded well."

Labor troubles. It is not to be taken for granted that the course of the Federation has been a smooth one. It has had its troubles, its strikes and its lockouts. It has been harried by the International Workers of the World, but it has sponsored much beneficial labor legislation, and has been the cause of much improvement in working conditions.

To go into an extended account of the activities of the labor unions demands more space than is available in this paper, and so much has already been published that it seems wise to refrain from going into any greater detail.

Scientific Management.

The aims and objectives of Scientific Management have been the subject of much criticism during the past. It is evident to one that has studied the subject that owing to the many variables that may enter into the case, coupled to the fact that unless expert counsel has been obtained to organize and install the procedure, it is open to many serious and vicious abuses. This fact alone has been the cause of more objections and propaganda against the system than any real legitimate reason for its seeming failure to function as it is widely heralded to do.

It is evident that as Mr. Taylor spent the best years of his life in developing the system, no one could conscientiously claim that he was an efficiency expert unless he had spent as much time and profound thought on the subject as he would have had to do to earn a doctorate in a university.

The problems of scientific management have been tried in many establishments by rank and inefficient pretenders lacking the proper technique, a fact which makes the public think that it is something of a slave driver that exacts the last drop of energy every day from the man working under this system.

Mr. Fred W. Taylor began his investigations in 1880* and only made his first public address, "On the Art of

* Proceedings A.S.M.E. Vol.28 No.3 1906.

"Cutting Metals" on December 4, 1906, he at that time being President of The American Society of Mechanical Engineers.

The experiments described in his paper were undertaken to obtain a part of the information necessary to establish in a machine shop a system of management, the central idea being:

- (A) "To give each workman each day in advance a definite task, with detailed written instructions, and an exact time allowance for each element of the work."
- (B) "To pay extraordinary high wages to those who perform their tasks in the allotted time, and ordinary wages to those who take more than their time allowance."

At the time the study was begun it was centered around three questions that confronted the machinist every morning. These were: (1) What tool shall I use? (2) What cutting speed shall I use? and (3) What feed shall I use? During twenty six years of time sixteen thousand experiments were recorded in the Bethlehem Steel Company. About two hundred thousand dollars were spent on the work during this time and over eight hundred thousand pounds of iron and steel used.

Mr. Taylor stated that during all this time the investigations had the sole objective of finding the true answer to these questions under all the varying conditions of machine shop practice, and at the time his paper was presented, still had this as the main object in view.

He said - "In other words, our problem is to take the work and the machines as we find them in a machine shop, and by properly changing the countershaft speeds, equipping

the shop with tools of the best quality and shapes, and then make a slide rule for each machine to enable the intelligent mechanic with the aid of these rules to tell each workman how to do each piece of work in the quickest time.

It is to be distinctly understood that this is not a vague, Utopian result, to be hoped for in the future, but an accomplished fact, and has been the daily practice in our machine shops for several years; and that the three great questions, as to shapes of tools, speed, and feed, above referred to, are daily answered for all of the men in each shop far better by one trained mechanic with the aid of his slide rule than they were formerly by the many machinists, each one of whom ran his own machine, etc. to suit the foreman or himself.

It may seem strange to say that a slide rule enables a good mechanic to double the output of a machine which has been run, for example, for ten years by a first class machinist having exceptional knowledge of and experience with his machine, and who has been using his best judgment. Yet, our observation shows that, on the average, this understates the fact.

To make the reason for this more clear it should be understood that the man with the aid of his slide rule is called upon to determine the effect which each of the twelve elements or variables has upon the choice of cutting speed and feed; and it will be evident that the mechanic, expert or

mathematician does not live who, without the aid of a slide rule or its equivalent, can hold in his head these twelve variables and measure their joint effect upon the problem."

When these experiments were started in 1820, Mr. Taylor, who was the newly appointed foreman of the small machine shop of the Midvale Steel Company, of Philadelphia, realized that his knowledge of the three questions was less accurate than that of many of the machinists in the shop, and that there was nothing he could do to prove to the men that they could turn out more work with the same amount of labor, until he could prove to the men where they could save time and money for all concerned.

His conviction was so strong that he obtained permission from the management to make a series of experiments to investigate the laws of cutting metals with a view of obtaining a knowledge at least equal to that of that of the combined machinists who were under him. He expected that these experiments would last six months but the field once partially explored proved so full of possibilities that the experiments lasted twenty six years.

Among the men to whom credit is due as cooperating in these researches are: Mr. G.M. Sinclair, Mr. H.L. Gantt, Mr. Maunsel White, and Mr. Carl Barth.

During the time these researches were being carried on all the laws and findings were kept secret with the evident intent that no one should be oppressed by some misguided

attempt to profit at the expense of the worker until the whole situation had been carefully worked out and formulas, slide rules and other information standardized with a view of giving all companies an equal chance when results were certain. The fact that very little information was published, and most of the promises were verbal, speaks well for the loyalty of men and corporations, when so much loose talk is being spread about concerning dishonesty and graft in connection with some corporations and prominent business men.

The writer expressed his doubts whether any other country can produce a parallel record of such widespread good faith among its engineers and mechanics.

Mr. Taylor also recognized the fact that unless his system was not followed through in all its details there would be dissatisfaction that would result in defeat. He says, "Little can be accomplished with these laws unless the old time shop foreman and superintendent have been done away with, and functional foremanship be substituted.--- This involves such radical, one might almost say, revolutionary, changes in the mental attitude and habits of both the workmen and of the management, and the danger from strikes is so great and the chances for failure are so many, that such a reorganization should only be undertaken under the direct control (not advice but control) of men who have had years of experience and training in introducing this system.

A long time will be required in any shop to bring about

this radically new order of things; but in the end the gain is so great that I say without hesitation that there is hardly a machine shop in the country whose output cannot be doubled through the use of these methods. And this applies not only to large shops, but also to comparatively small establishments. In a company whose employees all told, including officers and salesmen, number about one hundred and fifty men, we have succeeded in more than doubling the output of the shop, and in converting an annual loss of twenty per cent upon the old volume of business, into an annual profit of more than twenty per cent upon the new volume of business, and at the same time rendering a lot of disorganized and dissatisfied workmen contented and hard working, by insuring them an average increase of about thirty five per cent in their wages."

He recognizes the fact that the change in procedure for this new type of management must be thoroughgoing in every detail or failure will result; also that the fact that standardization really means simplification.

"A study of the recommendations made throughout this paper will illustrate the fact that we propose to take all the important decisions and planning which vitally affect the output of the shop out of the hands of the workmen, and centralize them in a few men, each of whom is especially trained in the art of making these decisions and in seeing that they are carried out, each man having his own partic-

ular function in which he is supreme, and not interfering with the functions of other men. In all let me say again that we are aiming at true simplicity, not complication."

In recent years the Taylor Society has formulated and codified the intent of Mr. Taylor's work as follows*
Objects. Through research, discussion, publication, etc.
Taylor Society Aims.

(1) To secure for the common benefit of the community, the worker, the manager and the employer - understanding and intelligent directing of the principles of administration and management which governs organized effort for accomplishing industrial and other social purposes.

(2) To secure the gradual elimination of unnecessary effort and of unduly burdensome toil in the accomplishment of the work of the world.

(3) To promote the scientific study and teaching of the principles governing organized effort and of mechanisms of their adaptations and applications under varying and changing social conditions.

(4) To promote general recognition of the fact that the evaluation and application of these principles and mechanisms are the material concern of the community, the worker, the manager and the employer.

(5) To inspire in labor, manager and employer a constant adherence to the highest ethical conception of their individual and collective responsibility.

* Taylor Society Bulletin June 1930.
Statement of Aims of the Society.

Dean Kimball of Cornell University, says * "Mr. Taylor died, untimely, in 1915, having devoted the later years of his life solely to the work of advocating his ideas of management. It is possibly a little too early fully to evaluate his work and that of his immediate followers. Like most advocates of reform they were prone to confuse mechanisms with principles. Because of this many of the earlier attempts to apply the Taylor "System", so called, ended in financial disaster and the term "efficiency" fell into disrepute from which it has never fully recovered. Few industrial plants have adopted Taylor's methods as a whole, but many of the principles and methods that he advocated have become common practice even in industries quite remote in character from those in which he did his pioneer work, and without doubt much of his philosophy of management will remain since it rests upon sound economic principles."

It is evident that the economic use of many of the principles such as division of labor, transfer of skill, is governed entirely by the quantity to be manufactured. The law of increasing productivity, stated as follows may adequately express this.

"The unit cost can, in general, be decreased as the quantity to be produced increases."

*
Kimball - Principles of Industrial Organization.
Page 50, Chapter IV.

It is evident that in a large industry such as the General Motors Company that are turning out a varied product in great quantities, there must be an entirely different system than a small shop employing only a handful of men. It is in the large shop where Mr. Taylor's principles have found favor, while many smaller shops that tried the system found it too topheavy with an overhead too large to warrant its continuance.

In the large shop there are so many pieces of varying complexity to be made, and routed so as to arrive at a given spot at a certain time since there must be no break in the flow of the output or other departments become congested and must necessarily cease to function.

In these shops the system perhaps modified to suit the existing conditions has proved worthwhile. The human element has had to be rewarded by visible and immediate returns in the shape of increased remuneration. The rank and file of labor cannot understand, and it is useless to reason with him in many cases.

It is certain that any system to function must take into account the personal equation and the question as to whether it is scientific or not is a debatable question.

Objection is often made, by the old type of managers on the premise that it increases cost of production. In many cases this may be true, but it is certain, however, that the average workman is not in a position to be a

competent judge, as he cannot see all the details of the manufacturing operations.

Any large manufacturing system necessarily has to make use of the principle of the division of labor that involve separation of mental and manual processes and transfer of skill necessarily involves a reduction in the amount of labor actually spent upon the work and an increase in the amount of planning or indirect labor expended upon it. Whether such an arrangement will produce a greater output and reduced cost will depend on the quantity and character of the work.

This is evident by the number of industrial concerns that have introduced and afterward modified the procedure to retain only the part that was of economic value to them.

As Dean Kimball says, "It cannot be disputed, however, that these principles do result in an increased output and decreased costs when properly applied; and the manager that does not use them as far as the limitations of his case will allow, simply because he does not believe in system of any kind, is blinding himself to his opportunities."

Part III.

The Problems of Reemployment.

Every paper and magazine that we read has much to say about the problems that are being presented by what many writers fondly call "the machine age." So much talk has gone forth, much of which seems biased or rather based on only a partial view of the situation, that it seems pertinent to this paper to examine a few sources of this talk and compare the results.

The alarmist sees such items as these * "More than 130,000 workers have been displaced on farms, by the use of 45,000 harvesting and reaping machines."

A factory operative turns out 32,000 razor blades in the time he required to formerly produce 500.

Compressed-air control of New York subway doors has cut down the number of guards by twenty five per cent in ten years, while the number of passengers carried has increased fifty per cent.

The Journal of Commerce raises this question: "We are so accustomed to associate unemployment with prostrate industry, closed factories, and universal profound depression that it is hard to revise our ideas and grasp the fact that we also must grapple with an unemployment problem that is the outcome of our prosperity.

Attention has been called many times in these columns to the paradoxical juxtaposition of rising output and a

* Worlds Work. Feb. 1929. Thomas H. Ganmick
Miracles of Reemployment.

declining number of workers in the country Can anything be done about it, or must we accept the fact that progress is usually achieved at the expense of some elements in the community?"

James J. Davis remarked in 1923 that technological unemployment is not only a serious social problem but also an economic factor. The jobless man and his family are not proper consumers. They add little or nothing to the sum of national demand that makes business and keeps the country at work.

Not so many years ago English and French workmen were smashing the machines that stole their jobs. Even today British and some sections of Continental organized labor are aggressively hostile to labor saving devices. American workers and the leaders of their organizations have a keen understanding of what mechanical improvements have done for them. Occasionally, though, some of them show bitterness over the ruthlessness with which the machine forces them into the street.

The orthodox economist can call on the past to support his contentions. The process of mechanization, to use the term in its broadest sense, was going on long before the birth of history. In fact there probably never would have been any history except for the labor saving devices of our remote ancestors. Before they improved their primitive methods of sowing, harvesting, hunting, and sheltering

themselves, they had no time for writing history. One man today can do perhaps as much today as 10,000 could do 10,000 years ago, but the rest of the 9,999 today manage to keep busy.

When asked to be specific, the orthodox economist will say that the surplus labor created in any industry by the introduction of new machines creates new jobs in supplying material for the machines or creates new demands by creating new jobs that were unheard of before the advent of the new machine. Many of these lines of work have been either based on, or greatly expanded by mechanical inventions. They supply comforts, luxuries, and refinements that the public is able to buy largely because of the gifts of these machines.

In one important case at least the machine has filled in gaps that were left by deserters. The exodus from the farm has been going on for decades, for the reasons that were not purely economic. Young men left their fathers' farms not necessarily because of higher pay in the cities, but because they preferred urban to rural life. They wanted the cities' comforts. The situation might have become serious if the invention of harvesting machinery and other mechanical devices had not taken place. The individual farmer finds his situation far from satisfactory, but the country as a whole is far better off because of the milking machine, the reaper and combine. Without their

restraining influence, the shortage of labor might have forced the prices of farm products unpleasantly high.

However we interpret the signs of the times, the fact remains that we are far better off economically than the country was fifty years ago.

Leading the expert witnesses is Stuart Chase, one of the ablest modern economic writers. He has an "uneasy suspicion" in his book on "Machines", that the saturation point has been reached; the blotting paper industries will soak up no more men. As they go out of factories, due to technical improvements, there is no longer room for them in the wayside garages, filling stations, advertising agencies, spear carrying in the movies, or whatever - and would that I knew - they have gone. The overhead services, so runs the rumor, have all the manpower that they can profitably stand - some of them are lying down under it - and where are the poor devils to go? The answer is the park bench: a bench which from now on is destined to grow longer and longer. Jobs can no more be created as fast as the machine ties a man out of the old one. Technological unemployment is before us, and unless something is done and that very quickly, a heavy bill, cast in the terms of poverty, wretchedness and despair, will shortly be submitted."

But Mr. Chase makes his statement less alarming, admitting that what he says "is largely speculation - the

boob-poochers are many and headed by the most august authorities, chiefly commercial authorities - but the uneasiness still persists."

Mr. Chase, Ethelbert Stewart and Horace Taylor are all deeply and sympathetically interested in the problems of the laboring man, and their dread is accentuated by the fear that the worker will not reap his share of its gains.

As to the danger of permanent technological unemployment, we have the expert testimony of both sides. Magnus W. Alexander, president of the National Industrial Conference Board, has published one of the most authoritative treatises existent on the subject. He states very positively that "The relative decline of personnel needed in the production of goods is small as compared with the constant expansion of employment in other fields, which results from increasing national wealth and income."

He goes on to say that "The benefits arising from the general uplifting of both our material and social standards of life for the wage earning population and for the nation as a whole are so vast and far-reaching as should disarm the doubts of the most profound skeptic. --- Progress will always cause individual hardship to come, but progress cannot be stopped for that reason."

Dr. Julius Klein, director of the Bureau of Foreign and Domestic Commerce, is equally emphatic in his assurances that the other industries sooner or later draw in the

displaced workers. Secretary Davis, although not quite so confident as Mr. Alexander and Mr. Klein, nevertheless endorses their opinions.

It is not essential that the gains of workers should be in the form of higher wages, measured in either money or in purchasing power. Leisure is something of which the worker has none too much. If improvement comes by cutting the week to five days of six hours each, he will have gained a real share in the profits. "Real" hourly earnings have increased nearly forty five per cent and "real" weekly earnings nearly thirty five per cent in the past fifteen years. Despite the amazing improvements in production methods, moreover it seems fairly obvious that there is about as little unemployment as there has ever been, excepting for the recent business depression where everything was decidedly upset.

In an article by Dr. Julius Klein, Assistant Secretary of Commerce, given first as a radio talk and later printed in the American Machinist * he stated: "I think that the great majority of level-headed students of this subject view the machine as a liberator. They see it creating wealth - and not for a few alone. They recognize its prime responsibility for the rise of giant industries concerned with a vast array of new conveniences and comforts. They are grateful to it for lifting much of the age-old burden of grinding labor from the bent backs of the toilers.

*American Machinist. Feb.5, 1931.

Dr. Julius Klein - The Challenge of the Machine.

They conceive of it as the source of unprecedented wage scales.

That, of course - objects the skeptic - may be all right for the worker who has held his job and is operating the machine, but what becomes of his displaced shop-mate? Where does that figure in that advancing wage scale? Some observers are fearful of that impending increase in "technological unemployment" - many men have in fact been thus displaced. Their period of shift and change, of temporary bafflement, is apt to be extremely painful and distressing. Privation may result. The need for a more considerate, more concretely helpful attitude in all such cases is apparent. Society - and specifically employers - should aid such men to achieve a new, secure foundation of economic welfare. We cannot shirk that duty; we cannot afford to be remiss.

But from the very beginning of the machine age, every such upheaval, despite its temporary stresses or disadvantages, has lifted the masses of the people to heights of well being previously unattained, and I think we are fully justified in believing that the activities which have ramified endlessly from the new machine-driven industries - the new jobs (especially in the so-called service occupations) that have been brought into being by higher standards of living - should eventually take care of all the men and women displaced by the machine. New wants, new needs for



ever-varied service, sprout with amazing luxuriance from the soil of the Machine Age.

Our official Department of Commerce figures show that there was an increase of 200,000 people employed in factories between 1927 and 1929. If the machine were destroying jobs, that fact would be more evident in factories than elsewhere, yet the percentage of people working in factories is larger than it was either eighty or twenty or TWO years ago.

I find Mr. Franklyn Hobbs, the director of research in an Illinois financial institution, stating as "an unassailable, incontrovertial fact," that the introduction of automatic and labor-saving tools and appliances into the manufacturing industry has not reduced the amount of money paid by the industry to labor and has not displaced workers in certain industries as rapidly as avenues of employment have been opened up to them in other industries (American Machinist. Vol.74, page 193). Actually, this trained statistician tells us - "The machine age has increased employment, increased wages, made work easier, saved life and limbs, and has enabled the workman to live in comfort." During the past thirty years (according to these researches which Mr.Hobbs has developed on the basis of our government figures), time saving methods have in truth driven two workers out of every three from a given bench, but they have left the third man drawing just as much pay as the three men had drawn before the

tools arrived, and, moreover, the two men were driven from that bench to other benches at increased wages. That is the broad generalization and conclusion from statistics.

* Mr. John Flynn, (a keen observer), by elaborating one great outstanding example, shows us very clearly just how the thing works out. By putting in more efficient machinery during the past half dozen years the American automobile industry has greatly increased the number of cars which a given number of men is able to produce. Now, has that advance of the machine swelled the ranks of the unemployed? Quite the contrary; it has meant better cars at lower price - a boom in the industry which has compelled the manufacturers to put on tens of thousands of new workers for the actual production of the motor vehicles themselves.

And in addition here is an even bigger thing. The vastly increased use of cars (with its ultimate basis largely in labor saving machinery) has absolutely created out of nothingness, we may say - millions of jobs for the makers and sellers of automobile parts and accessories; for the tire workers; workers in metals, in lumber and wood, in textiles, glass, and other raw materials; for freight handlers; motorcar dealers and salesmen; workers in automobile finance and insurance; service and garage men; chauffeurs and drivers of taxis, buses, and trucks;

* op. cit. p. 59.

men making gasoline; men employed in building and maintaining good roads; people who build and work in roadside stands and lunch rooms - to say nothing of those who are engaged in making camping outfits, driving gloves, blankets, and all kinds of other motoring equipment. And then, too, there are the benefits to the persons who produce and transport the raw materials for all these things. If it had not been for the wonder-working, labor-saving machinery of the automobile factories, all these millions of other excellent jobs would never have existed. That is the way that most such matters are likely to work out in the complex modern business structure of the present day.

But the main fact is - they are triumphs - there is no gainsaying that. We pay in the United States three times the British wage, four times the German wage, ten or twenty times the Oriental wage. This has found expression in education for all, comfortable living in livable homes, and more recently in an almost endless variety of luxuries and semi-luxuries that have astonished the visitor from abroad. Our amazing developments in machinery and "mass production" have riveted the attention of foreigners upon our industrial methods.

Business men in distant lands have found it difficult to explain how it is possible for us to pay the high American wage and at the same time successfully export enormous quantities of manufactured goods, to compete effectively



in the world markets with the products of low wage countries. Machinery is the answer. The industries of this country absorb twenty three dollars of machinery per year per capita for the entire population. Britain absorbs ten dollars, Germany nine dollars, and the figure for China is five cents. American workmen earn more and live better, because the machines available to their hands produce more. In this we have the secret of one of the vital sources from which flow the high American standard of material existence - and the democracy of American culture. Through the use of constantly improved machinery the path to progress lies. Our welfare requires continuing and rapid improvement in production methods, for it is in this way that we have attained, and will be able to maintain, the industrial leadership of the world - with all that means to us, in every aspect of our life."

Herbert Corey, writing in the Nation's Business, also emphasizes the same theme. He believes that our ideas of technological unemployment are founded on tradition. His idea is that machines and machines that make the machines enter into our daily life so much that if we were suddenly denied them we would "hear the clack of the wooden loom through opened doors in every village and books would be printed a page at a time on crude presses from hand cut type."

Mr. Franklyn Hobbs, Director of research, Central Trust

Company of Illinois, Chicago, in an address before the Machine Tool Distributors of Chicago,* discussing the Machine Age and its Consequences, says that he has been gathering statistics on business operations for forty years. His conclusion is that misinformation is the commonest article of commerce concerning fundamental things.

"The distribution and broadcasting of such misinformation caused a mild business recession in 1930 to develop into a serious and painful business depression. Had every man in America held the knowledge which was possessed by some thousands of real students of business conditions, the depression in which we now wallow need have been no more than a mild business recession such as we experienced in 1924 and 1927."

He holds that many important failures were started by people that claimed to have inside information, while the facts of the case are, that there is no inside information except that actually possessed by the insiders.

"Real information in regard to all operations of consequence is available to all of us. We can know what is going on in every line of business and financial activity. Some men of large affairs and many men of small affairs lack the time and facilities to dig up all this information for themselves; therefore it becomes the job

* American Machinist. Jan. 29, 1931. Franklyn Hobbs
The Machine Age and its Consequence.

of the trained statistician to collect, correlate and disseminate the real facts concerning fundamental business operations.

As a result of comparative figures from the manufacturing census from 1899 to 1921 he proved the indisputable fact that "The introduction of automatic and labor-saving tools and appliances into the manufacturing industry has not reduced the amount of money paid to labor by that industry and has not been able to displace workers in certain industries as fast as avenues of employment have been opened up to them in other industries."

"Had there been no time and labor-saving tools introduced into factories during these last forty years, there could have been no electrical appliances, no telephone, no moving pictures, no radio, no airplane, and the lowly cigarette would be beyond the reach of a man of ordinary means."

Thirty years ago our population was seventy six million persons with six per cent of them employed in factories. At the beginning of last year this country had a population of one hundred twenty one million persons, and more than seven per cent were employed in factories. This shows that the demand for factory workers has increased faster than the population. Mr. Hobbs believes that this increased employment for factory workers must have been due to the introduction of machinery in manu-

facturing enterprise because the gain in factory employment was not as great in any other country where records are available. It is also true that in other countries factory employment increased in proportion to the increase in improved machinery.

As to the wages involved, in the beginning of this century factory workers were earning \$426.00 per year, while in 1929 the factory worker was paid \$1318.00 for his work. The number of workers increased faster than the population, while his wages increased more than two hundred per cent. This seems to answer the question as to the effects of machinery and also as to whether the worker is getting his share of wages and should dispel the fear of some writers that the worker is receiving his share of the benefits of machinery.

He concludes by saying, "I want to impress upon you the importance of spreading these facts so that they will reach the eye of every manufacturer, every stockholder in a factory, and every factory worker in this country. When this has been done, most of the labor disputes in factories will settle themselves, and the labor demagog who rants about machinery causing unemployment will have to go and find a small hole, crawl into it, and pull the hole in after him.

Gentlemen, the machine age increased employment, increased wages, made work easier, saved lives and limbs,

and enabled the working man to live in such comfort and luxury as was unknown to any man on earth when some of us were born."

*

In England, as well as in the United State, industrial executives are finding it necessary to refute the time-worn fallacy that improved and more scientific methods tend to decrease employment.

A case in point is cited by C.R.F.Englebach, Works Director of the Austin Company, Ltd., who recently wrote The Automobile Engineer (London), that his company by the expenditure of 1,143,500 pounds in the plant over a five year period (1925-1930) reduced the number of workers per car from sixty three to thirteen, but the total number employed was increased from 7,436 to 12,200. At the same time the retail price of the product was reduced forty seven per cent.

This executive might have added that hundreds of workers outside his own plant were given employment in building the new machinery which his company installed. Moreover, workers numbered in the hundreds of thousands are employed in servicing cars, refining and selling fuel, manufacturing tires and doing a great variety of other work almost unknown a generation ago, largely because Austin and other companies in England, in the United States, in France and in Germany have been enabled to build inexpensive cars that never would have been possible without constantly improved methods and machinery.

* American Machinist. April 16, 1931.

Editorial. New Machines - More Employment.



Steps Toward Industrial Democracy.

It would be an exaggeration, of course, to say that employers as a whole are in favor of industrial democracy, but we see evidences of a tendency in that direction from all sorts of enterprises, prominent manufacturers, merchants, bankers, public utility officials, and others prominent in our economic life have declared publicly for a larger degree of democracy in economic activities.

* The latest report of the Boston Elevated Railway contains many evidences of a tendency in this direction. The report contains many references to the spirit of co-operation amongst the employees and dwells at some length on the fact that in the face of serious competition from the automobile it has been able to make a good showing for the past year due principally to the good spirit that exists among the men in suggesting new devices and new methods of handling traffic that help to keep the company progressive. The vast increase in one man operated cars is cited as one instance of how they are able to cope with the increasing demands for service that they would not be able to handle as a going concern unless the employees had taken their share of the burden.

Edward A. Filene has often expressed the belief that industrial democracy should be increased and industrial autocracy reduced as rapidly as possible, at the same time having proper regard for economic efficiency and productivity.

* Boston Herald Editorial. March 10, 1931.

Owen D. Young, of the General Electric Company, made a striking plea for industrial Democracy on the occasion of the opening of the new buildings of the Harvard School of Business in June, 1927. He said, in part: "Here in America we have raised the standard of political equality. Shall we be able to add to that full equality? No man is wholly free until he is politically and economically free. Perhaps some day we may be able to organize human beings engaged in a particular undertaking so that they will truly be the employer buying capital as a commodity in the market at the lowest price. I hope the day may come when these great business organizations will truly belong to the men who are giving their lives and their efforts to them, I care not in what capacity. They will use capital truly as a tool, and they will be interested in working it to the highest economic advantage. Then men will be free in cooperative undertakings and subject only to the same limitations and chances as men in individual business. Then we shall have no hired men."

This sums up the beliefs and hopes of many of the leading men in this country, and gives us hope that the future will bring about more converts to this doctrine of industrial democracy with less unrest among people and strife between so called capital and labor.

Attacks upon Laissez-faire in industry.*

From the employes, too, has come a demand for more than

* Gemmill. Present Day Labor Problems. Ch.X.

mere economic advantages. Satisfactory wages, hours, and working conditions are important, and there has been no lessening of interest in these matters. The workers have gone further and added to these claims upon industry a demand for status - for a definite place in industry which will enable them not only to have a part in fixing the terms under which they shall work, but also, by utilizing their knowledge gained through experience, to contribute constructively to the progress of industry.

This idea has figured prominently in recent years, in the publications of the American Federation of Labor. Also, many speakers and writers who are neither employers nor employes, and may perhaps be said to voice public opinion, have repeatedly demanded that the old master-servant relationship be abolished and a new spirit of partnership in industry be set up in its place. The public, through the ballot, have shown the dislike of industrial autocracy by electing legislators who have passed many laws affecting the policies and practices of business. This might be called "industrial democracy through legislation," and has taken the form of legal restrictions in such matters as productive processes; factory, shop and mine conditions; the accurate labeling of goods; wages and hours; financing, and similar measures.

Various Concepts of Industrial Democracy.

There seems to be a growing sentiment that industry

should take up some of the democratic qualities that have been long a characteristic of American political life and there seems to be so far many ideas as to just how this change can be brought about. Webster defines democracy as "a form of government in which the supreme power is retained by the people and exercised either directly or indirectly through a system of representation and delegated authority periodically renewed, as in a constitutional representative government, or republic."

We might expect industrial democracy, then, to be some form of procedure that conforms to the intent of this definition. A recent example of this is the passing of control of the house of Armour & Company from the Armour family, to a board whose chairman is one of the employees having proven himself capable of both taking as well as giving orders through long years of experience in the business.

Another recent example of re-emphasizing this concept of industrial democracy is President Hoover's recent veto of the Muscle Shoals bill on March 7, 1931, in which he stated. * "I am firmly opposed to the government entering into any business the major purpose of which is competition with our citizens. This bill raises one of the important issues confronting our people. That is squarely the issue of federal government ownership and operation of power and

* Boston Herald, March 4, 1931. Editorial.

manufacturing business, not as a minor by-product but as a major purpose.-- I hesitate to contemplate the future of our institutions, of our government, and of our country if the preoccupations of its officials is to be no longer the promotion of justice and equal opportunity, but is to be devoted to barter in the markets. This is not liberalism; it is degeneration."

This would have involved the government in local matters that had better be left to the individual states, such as power rates, taxation and other well recognized state and local prerogatives.

There are still many ideas as to just what constitutes industrial relationships, and we still see that while many employers still talk industrial democracy but think in terms of nearly that same type of employer-workmen relationship as existed years ago with the addition of a shop committee that was free to express opinions that might be adopted if they seemed expedient but more often discarded as being too radical.

Trade Union Ideas of Democracy in Industry.

It would seem that the trade unionists have in the main a clearer idea of what constitutes democracy in industry than many members of the managerial group - or perhaps they feel free to air their views in public.

The American Federation of Labor has spoken for

"The orderly functioning (in industry) that we have been able to develop in our political life" for "an industrial franchise comparable to our political franchise," and another trade unionist has shown an understanding of the fundamentals of industrial democracy in making the following explanation: "The essence of the democratic method simply is that labor shall have a duly acknowledged right to participate in determining all regulation of wages and working conditions affecting it. Through its organization, labor has democratic control of itself. Theoretically at least, corporations are democratic organizations of the owners of capital or its users. So then, let them settle their common affairs democratically. The method may take a thousand forms in practice. The form may vary for each industry. The great thing is to secure the universal recognition of the democratic idea."

In the light of the foregoing statements it would seem that thorough-going industrial democracy cannot be attained until the workers are in possession of approximately as much power as the employers. Anything short of this is not true democracy, even though it be called by that name. There are only a few employers and only a few students of labor who would advocate that every plant would go over completely to any such kind of operation. It is certain that labor as a whole is not yet ready for any such drastic move. Many of them are content to do a good day's work, and let some one



also do the planning, the financing, and the selling of the product. In other words, they either do not feel equal to the task of doing anything beyond doing a day's work and are unwilling to take a hand in sharing the responsibility of management. If the manager wants to take a day off and go fishing and then make up his work evenings that is his privilege but the worker neither cares to do any such thing and in many factories it would be an impossibility for any such thing to take place, as it would involve the use of power and the presence of many others to operate the stock rooms or other sorts of devices intimately connected with his work.

As for employee representation constituting industrial democracy, it is obvious that the authority exercised by the shop committee fall far short of the authority held by the employer.

Most plans of employee representation permit the workmen nothing more than advisory power. This does not justify the term industrial democracy. The right to exercise one's opinion is important in industrial life, as it is in political life, but the exercise of this right, unless accompanied by further power, does not imply the attainment of democracy, but merely one of the first steps toward democracy.

The Element of Democracy in Collective Bargaining.

It is obvious that when collective bargaining takes

place both parties must be on a parity of economic power; therefore collective bargaining is seldom undertaken by the employers until forced to do so by the workmen. This means that the employer is no longer able to impose his will upon the workers since their combined strength may cause serious trouble to the employer. Under these conditions the worker can stand up for his rights as they were forced to do under a regime of physical or economic slavery. The ability to strike back, which comes through the medium of effective organization, alters the situation materially, and in many cases has been the only way that the workman has been able to get a square deal.

To quote John Stuart Mill: "First, the rights and interests of every or any person are only secure from being disregarded when the person interested is himself able, and habitually disposed, to stand up for them; and second, that the general prosperity attains a greater height and is more widely diffused in proportion to the amount and varieties of the personal energies enlisting in promoting it. The former proposition that each is the only safe guardian of his own rights and interests is one of these elementary maxims of prudence which every person, capable of conducting his own affairs, implicitly acts upon."

To summarize then the only agency that has yet been developed for safeguarding the workers' rights and interests in modern economic life is a strong labor union that can

force collective bargaining when the need arises.

Mr. Hall of the American Telephone and Telegraph Company, says that, "There is a real place for the older or labor union type of organization in certain industries where conditions of unbridled competition and relative instability exist as between several separate concerns in the industry. Certainly there is a place for them in those concerns or industries whose managements are unconscious of the need for any personnel policy or are unscrupulous with respect to relations with and treatment of the people in business." "Golden Rule" Nash, who urged his employees to join the clothing workers union, holds that industrial democracy is as essential as political freedom, and says that "Men are only strong collectively; otherwise, they are exposed to greed exploiters."

Sir Henry Thornton, of the Canadian National Railways, defends union membership not on the grounds of necessity, but as a right to which the workers are entitled by virtue of their investment in industry: that collective bargaining is just as essential to the welfare of the employes as associations of capital are necessary and useful to the investor.

Collective bargaining, therefore, when carried on through a strong, independent organization is prerequisite to industrial democracy, since in the absence of a strong union, the employer is likely to only see his side of the

case and the worker is unable to maintain himself in such a fashion as to stay a self respecting member of society.

There are a few places where there is a distinctly democratic atmosphere, although there is no union shop condition. These are establishments where the employes have made no attempt and expressed no desire to unionize, but nevertheless the workmen have been assured by the employer that he will deal with them collectively whenever they band together and ask for recognition of their union. This is usually spoken of as a democratic attitude towards unions. This attitude has been expressed by the management of the Dutchess Bleachery, The Dennison Manufacturing Company, and several other concerns have figured prominently in the representation movement.

Requirements of Industrial Democracy.

The requirements of industrial democracy, as defined and implied by analogy to political democracy, are fairly well met by a system of collective bargaining through the independent unions of the workers, and the development of written industrial law in the form of trade agreements and their interpretation through a process of evolution that has taken many years. Some concerns have gone beyond this and have stated their position. W.P. Hapgood of the Columbia Conserve Company, believes in industrial government "of the workers, by the workers, and for the workers,"

stating his stand as follows: (1) full time employment; (2) full protection against sickness, accident, and old age; (3) minimum wage; (4) maximum wage; (5) profit sharing; (6) abolition of absentee control; (7) workers' control; (8) workers' ownership.

Another program in industrial democracy is that developed by W. Jett Lauck, in his volume "Political and Industrial Democracy. 1776-1926." Mr. Lauck sets up five essentials in industrial democracy, the first being an independent labor organization. The second is adequate wage standards, by which he means (1) a minimum wage; (2) differentials, varying with training, experience, skill, hazards and productive efficiency; (3) some arrangement for maintaining the original purchasing power of these wage standards; and (4) participation in gains effected through economies and increased efficiency in production. The third is such standard working conditions as have been sanctioned by the best industrial practice. Fourth is a provision for mutual and definite agreements as to methods of participation, ways of knowing the facts and problems of the industry, and methods of sharing in the company profits. The fifth is that the employees shall acquire a majority ownership in the industry, and shall assist in any new financing that shall be required by the company.

It is obvious that at the present time very few establishments have adopted all of these five points.



Several large concerns do at the present time offer their employes an opportunity to assist in the financing of new work or enlargements of the business. A few may be mentioned such as, The Steel Corporations, The Edison Company of Boston, The American Telephone and Telegraph Company and The Public Service Company of New Hampshire, (a subsidiary of The Insull Company, of Chicago.)

An instance of the fourth point is The Nashua Manufacturing Company of Nashua, New Hampshire, during the recent business depression had an opportunity to secure a large contract for blankets that would keep them busy all winter, provided the costs could be lowered. The company officials went out in the mills and talked with the workers and told them the whole situation. The workers held a meeting and accepted the offer of steady employment at a slightly reduced wage for all concerned in the company until such time as business should increase.

Another instance is The Fellows Gear Shaper Company, of Springfield, Vermont. During this same business depression they told all their workers just how much business was in sight for the winter and that there would be steady work on reduced time for an indefinite period. This raised the morale of all the employes, as they then knew just what position the company was in.

Evidences of Democracy in Industry.

The Dutchess Bleachery.

The Dutchess Bleachery of Wappingers Falls, New York, has already been mentioned as one case of an outstanding achievement in industrial democracy. The employees of this company are not unionized except in one department. The management of the company have expressed a willingness to deal collectively with all the employees as they do with the union in the folding department. Both management and employees are trying at all times to provide adequate wages. The firm supplies good working and living conditions and the firm keeps the workers informed at all times of the status of the business. The only point where this fails to meet Mr. Lauck's requirements is in the ownership of the business by the employees.

The Columbia Conserve Company.

The Columbia Conserve Company, of Indianapolis, is definitely headed toward employee ownership as a certain share of the profits are set aside to purchase stock to be held by the workers collectively, and at the present time the control of the company is in the hands of the employees. The policies are determined by a vote of the workers' council. Nearly all employees are paid by the year, without loss of income for sickness or other unavoidable causes. This system seems to be pretty near to being a perfect example of Industrial Democracy.

The A. Nash Company, Inc.

In this firm, ownership by the workers is an accomplished fact. Mr. Nash's practice of the Golden Rule has been quoted widely. He first urged them to join the union in order to be strong enough to protect themselves, and then turned over to his workers the new issues of stock based on reinvested earnings. They now control the Board of Directors and thereby the management. The size of the company does not permit the use of a direct democracy form of industrial government so their dealing with the management is through the union.

In the same way a number of other concerns have adopted similar forms of democratic management. Among those are Dennison Manufacturing Company, William Filene's Sons Company, Philadelphia Rapid Transit Company, Proctor and Gamble Company, and some phases are already in force by the General Electric Company.

A Platform for American Business.

The business depression of 1930 has been no mere passing episode. The hardships to individuals and business as a whole have caused commendable activity on the part of governmentable and social agencies, trying to find means of avoiding a similar recurrence in the future.

Men are beginning to question whether these cycles of depression are not avoidable, and whether it is not possible under better management to insure greater security to all classes of people who are willing to work; also as to whether their faith in American achievement and standards of living can be preserved.

Evidence is being gathered that these questions can be answered in the affirmative. Business depressions can be averted by preventative measures. It is the responsibility of the business press to foster constructive policies and to encourage progressive leadership. The McGraw-Hill Publishing Company is aiming to do its part in helping to clarify the situation and to stimulate thought and action by proposing the following:*

"It believes in the philosophy of individual enterprise and cooperative effort of which American achievement has been based.

* American Machinist, March 5, 1931.
Editorial Supplement.



It has confidence in the ability of American management to recognize and adopt sound economic principles as a basis for constructive policies, but is equally certain that by only conscientious effort on the part of each business unit, large or small, can American business as a whole return to normal and pursue a steady course.

Planning is essential for uninterrupted progress. To assist in such a program the McGraw-Hill Publishing Company offers through its publications the following principles and practical suggestions as a guide in formulating individual plans."

Before these plans were made, a selected group from the various departments of the publishing house made an extended tour of the United States, interviewing business men, manufacturers, and conferring with the Chamber of Commerce in many cities. The following plans included in this paper represent the conclusions that these delegates codified as a result of their travels.

As they say, "They are not presented as a ready-made formula for success, but as a foundation on which business can be built with some protection from the shocks and dislocations that have plagued it.

General Objectives.

The following general objectives are fundamental in planning sound business developments:



1. Maintenance of Established Standards of Living.

The belief that there is a general overproduction of wealth, that technical development necessarily involves unemployment, or that standards of living cannot be indefinitely increased is an economic fallacy. American business should not yield to it in any of the policies it pursues. Rather, it must protect and preserve our economic standards and social traditions by maintaining high purchasing power and regularity of employment and dividend disbursements, based on more stabilized methods of management and financing made possible by long-term planning.

Recommendation: Conserve and add to the gains achieved in the past ten years through technical advance, improved forms of industrial organization and methods of management, and new devices for financing industrial and market expansion. Increase efficiency in the economic production and distribution of goods and services so as to facilitate their widest possible consumption and thereby raise the standard of living of the American People.

2. Stabilization of Future Business Growth.

So long as there are wide fluctuations in business and in price levels, the gains to some groups are cancelled by losses to others and there is no net gain to the country as a whole. The interests of the speculative and creditor groups should be subordinated to the interests of those concerned with the production and distribution of goods

and services. The latter should have a larger measure of leadership in business policy to insure sound and lasting prosperity.

This leadership can be exercised only by a more deliberate process of long term planning and organization for the direction and development of business operations. Such effort involves market analysis, sales control, product development, modernization of factory and office methods, foresight in purchasing, long-term financing of fixed capital requirements and a stimulated program of capital investments in 1931 for the restoration of business volume. All this must be supported by broader policies of coordination within the industry of trade, cooperation with labor and participation in the organized development of regional and national resources.

Recommendation: Direct individual and organized effort to check excessive and unbalanced industrial and financial expansion, and prevent wide changes in price levels. This will remove the incentive to speculative gain, avoid conflict of creditor and debtor groups, and promote confidence in long-term investment and borrowing. It will also encourage productive and commercial enterprise, maintain a steady increase in consumer purchasing power and stabilize business progress.

3. Promotion of International Business Cooperation.

The world is economically interdependent. Though

the United States is the dominant factor in world prosperity, she cannot maintain or increase her own prosperity indefinitely without sharing it with the world, nor can her business system survive unless, by sharing its benefits, the other nations of the world can preserve their faith in it. This calls for a more active policy of international cooperation on the part of American business to assist in the gradual reduction or removal of unnecessary trade barriers that interfere with the natural exchange of goods and services between peoples, the development of a more stabilized international mechanism for the movement of capital and control of credit, and the revision of war debts and reparations.

Recommendation: Support individual or organized effort to promote cooperation among business and financial interests of the United States and other countries, in order to facilitate the normal international movement of goods, services and capital, and thereby enhance economic stability at home and elevate standards of living abroad.

4. Encouragement of Private Initiative and Responsibility vs. Extension of Governmental Activity.

American business should encourage self government. It has already shifted enough of its responsibility and thereby yielded enough of its initiative to government and must stand its ground against further extension of governmental action in matters in which it can assume

responsibility itself. The essential function of government is to keep clear the field of economic activity for private business initiative and to assure a basis of fair and equal competition in domestic and foreign trade. It should refrain from competing with any kind of business itself. It should facilitate and encourage the development of necessary controls upon business through organized self government. It should safeguard the economic stability of the country by maintaining stability of its own fiscal and international policies. It should reduce to the minimum the number of laws affecting business.

Recommendation: Oppose governmental regulation, control or expenditure which tends to weaken private individual initiative or cooperative effort, or to diminish the responsibility of the individual business concern or organized industry, for the accomplishment of the objectives stated above."

Placing the Responsibility for Action.

To summarize the course of action as stated above, it seems that the major burden of responsibility rests on a few groups that may be grouped under the following: (1) Industrial and Business Management, (2) Industrial, Trade and Commercial Organizations, (3) Banking and Financial Institutions, (4) Labor, and (5) Government.

Problems and Objectives of each Group.

(1) Industrial and Business Management.

Since the business concerns employ the bulk of the wage-earners, and by producing the major part of the materials that determine our standard of living, it becomes their responsibility to carry out the long term plans for production, distribution and financing that have been referred to previously.

(b) Support cooperative effort through various organizations, (c) Maintain a high wage scale that will insure adequate purchasing power and a high standard of living. (d) Equalize employment. (e) Establish some form of employment insurance. (f) Assist in stabilizing prices, and (g) Stabilize financial returns to the investors, and at the same time accumulate a sufficient reserve for an emergency.

(2) Industrial, Trade and Commercial Organizations.

These organizations constitute the medium through which business can progress, without much of the old time narrowness that marked the autocracy of the past.

They should be the clearing house for credit information, market conditions, standards of employment, and the economic development and use of natural resources.

(3) Banking and Financial Institutions.

It should be the duty of these institutions to check any tendency toward inflation or deflation, and when business requires financial assistance to insist on long-time planning as well as accumulating an adequate reserve.

They should assist in promoting mergers and development of international financing when it seems to be for the common good, and not as a political or speculative proposition.

(4) Labor. Since the foundations of our industrial life rests with willingness of labor to do the job; so then should labor show a spirit of cooperation and understanding of the fundamental principles of business.

Labor should understand that increased wages depend on increased efficiencies in production and distribution. Business must be conducted profitably if labor is to enjoy a high standard of living. Employers having a program of long-time planning are likely to be able to provide stable employment. Labor should demand of its leaders an understanding of sound business principles. Arbitration is better than strikes. International trade is essential to domestic prosperity. The extension of governmental activity hampers business in assuming its responsibilities.

(5) Government. "The essential function of government is to keep clear the field of economic activity for private business initiative and to assure a basis of fair and equal competition. It can best promote sound economic development through these policies. Refrain from competing with any kind of business itself. (This



has been recently emphasized by President Hoover in his veto of the Muscle Shoals Bill, previously referred to in this paper.) Encourage the development of the necessary control of business through self-government rather than by legislation. Safeguard the economic stability of the country by maintaining stability in its own fiscal and international policies. Exercise the greatest economy in public expenditures. Reduce to a minimum the number of laws affecting business. Cooperate with foreign nations for the fullest development of international trade."

"These Recommendations can have value only as they are applied in the planning of individual company operations and in the programs of those industrial, financial and governmental agencies that are responsible for the conduct of our economic affairs. Taken broadly, they constitute a platform of economic principles and business policies upon which far sighted management may well take a stand.

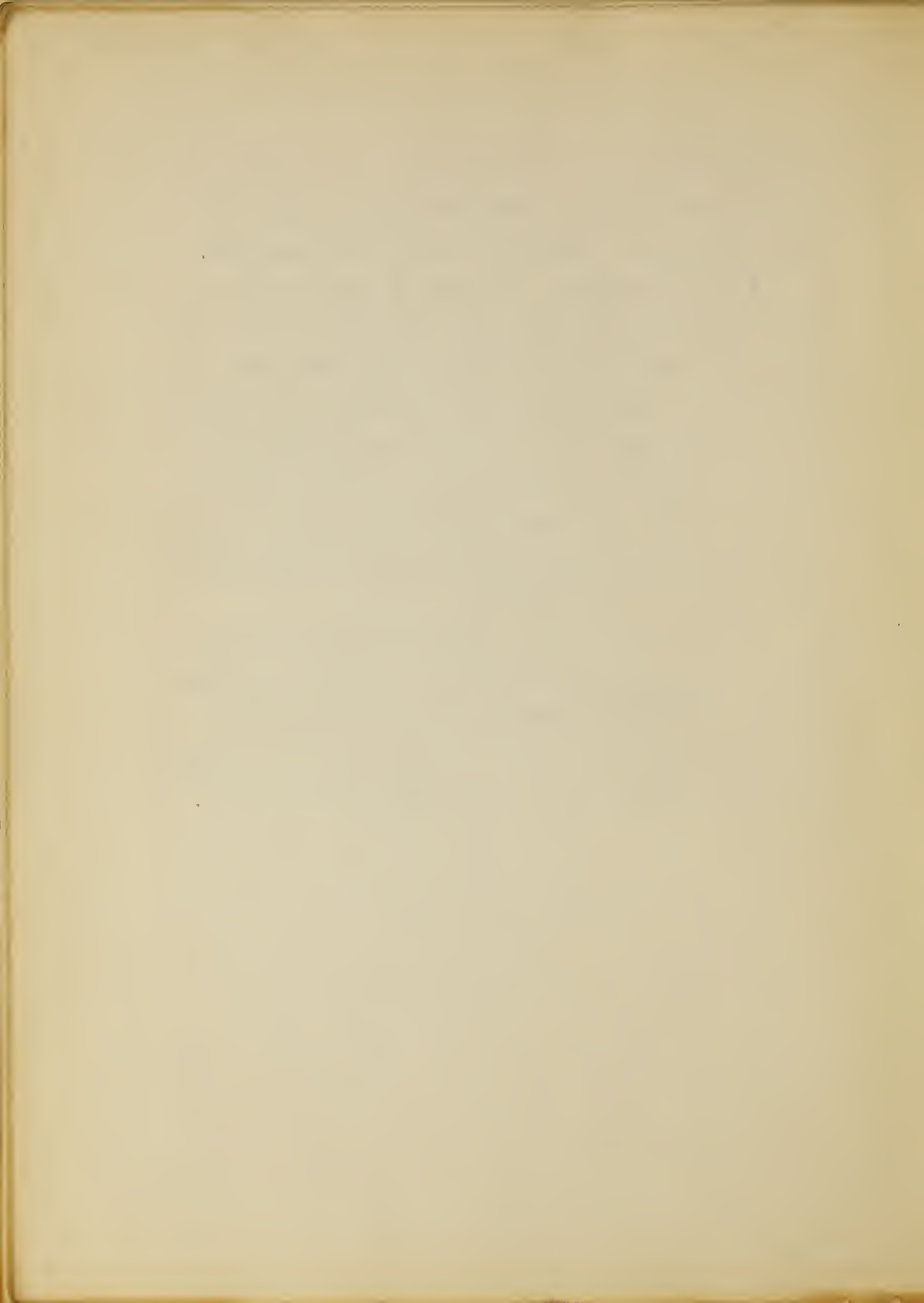
New conditions of our modern industrial civilization have laid new social responsibilities upon those men who guide the destinies of business enterprise. The protection of the welfare of workers and their security of employment and the assurance of permanent income to investors have become basic factors in the attitude of public opinion towards industry.



Public opinion in the end has the power to preserve or curtail that freedom of initiative around which the whole philosophy of American life has been organized.

Business management must meet the call of these responsibilities, therefore, if the people of the world are to be lifted out of the present depression and given assurance of greater stability of earning power in the future, business leadership itself must strengthen and secure the success of this system of private initiative and cooperative effort upon which the prosperity of this country has been founded and of which it stands today as practically the sole exponent."

At this time it seems that more thought is being given to these phases of industrial democracy than ever before, and it seems to hold out hope that the future will bring even greater cooperation between the various groups interested in the future welfare of the nation.





BOSTON UNIVERSITY



1 1719 02572 6904

